

# **Exhibit 17**

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF NEW YORK  
3  
4 SECURITIES AND EXCHANGE )  
COMMISSION, )  
5 )  
Plaintiff, )  
6 ) Case No.  
vs. ) 20-Civ-10832 (AT) (SN)  
7 )  
RIPPLE LABS, INC., BRADLEY )  
8 GARLINGHOUSE, and )  
CHRISTIAN A. LARSEN, )  
9 )  
Defendants. )  
10 \_\_\_\_\_ )  
11  
12  
13

14 CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER  
15 REMOTE VIDEO DEPOSITION OF  
16 DANIEL R. FISCHER  
17 Monday, February 28, 2021  
18  
19  
20  
21  
22

23 STENOGRAPHICALLY REPORTED BY:  
24 CHERYL L. SANDECKI, CSR, RPR  
LICENSE NO. 084-03710  
25 JOB NO. 220228LAK

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF NEW YORK  
3  
4 SECURITIES AND EXCHANGE )  
COMMISSION, )  
5 )  
Plaintiff, )  
6 ) Case No.  
vs. ) 20-Civ-10832 (AT) (SN)  
7 )  
RIPPLE LABS, INC., BRADLEY )  
8 GARLINGHOUSE, and )  
CHRISTIAN A. LARSEN, )  
9 )  
Defendants. )  
10 \_\_\_\_\_ )  
11  
12

13 The videotaped deposition of  
14 DANIEL R. FISCHER, called for examination  
15 pursuant to the Rules of Civil Procedure for the  
16 United States District Courts pertaining to the  
17 taking of depositions, taken before  
18 CHERYL L. SANDECKI, Certified Shorthand Reporter  
19 for the State of Illinois, at 110 North Wacker  
20 Drive, Chicago, Illinois, on February 28, 2022,  
21 at the hour of 9:15 a.m.  
22  
23  
24  
25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A P P E A R A N C E S:

2

3 FOR THE PLAINTIFF:

4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION

5 CHICAGO REGIONAL OFFICE

6 BY: BENJAMIN J. HANAUER, ESQUIRE

7 175 West Jackson Boulevard

8 Suite 900

9 Chicago, Illinois 60604

10 Telephone: 312.353.8642

11 E-mail: hanauerb@sec.gov

12 - and -

13 UNITED STATES SECURITIES AND EXCHANGE COMMISSION

14 NEW YORK REGIONAL OFFICE

15 BY: MARK SYLVESTER, ESQUIRE

16 New York Regional Office

17 200 Vesey Street

18 Suite 400

19 New York, New York 10281-1022

20 Telephone: 212.336.1060

21 Email: sylvesterm@sec.gov

22

23

24

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A P P E A R A N C E S (Continued)

2 FOR DEFENDANT RIPPLE LABS INC.:

3 DEBEVOISE & PLIMPTON LLP

4 BY: SCOTT CARAVELLO, ESQUIRE (Remote)

5 919 Third Avenue

6 New York, New York 10022

7 Telephone: 212.909.6000

8 E-Mail: scaravello@debevoise.com

9 -and-

10 KELLOGG, HANSEN, TODD, FIGEL & FREDERICK PLLC

11 BY: REID M. FIGEL, ESQUIRE

12 GAVAN GIDEON, ESQUIRE

13 KYLIE CHISEUL KIM, ESQUIRE (Remote)

14 ELIANA PFEFFER, ESQUIRE (Remote)

15 COLLIN R. WHITE, ESQUIRE (Remote)

16 Sumner Square

17 1615 M Street, N.W.

18 Suite 400

19 Washington, D.C. 20036

20 Telephone: 202.326.7999

21 E-mail: rfigel@kellogghansen.com

22 ggideon@kellogghansen.com

23 kkim@kellogghansen.com

24 epfeffer@kellogghansen.com

25 cwhite@kellogghansen.com

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A P P E A R A N C E S (Continued)

2 FOR DEFENDANT BRADLEY GARLINGHOUSE:

3 CLEARY GOTTlieb STEEN & HAMILTON

4 BY: MICHAEL SCHULMAN, ESQUIRE (Remote)

5 2112 Pennsylvania Avenue, NW

6 Washington, D.C. 20037

7 Telephone: 202.974.1500

8 E-mail: mschulman@cgsh.com

9

10 FOR DEFENDANT CHRISTIAN A. LARSEN:

11 PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP

12 BY: MARTIN FLUMENBAUM (Remote)

13 KRISTINA A. BUNTING (Remote)

14 EMILY M. GLAVIN (Remote)

15 1285 Avenue of the Americas

16 New York, New York 10019

17 Telephone: 212.373.3191

18 E-mail: mflumenbaum@paulweiss.com

19 kbunting@paulweiss.com

20 eglavin@paulweiss.com

21

22

23

24

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A P P E A R A N C E S (Continued):

2

3 ALSO PRESENT:

4 EUGENE CANJELS, Ph.D, SEC

5 MAXWELL CLARKE, SEC

6 MARINA MARTYNOVA, SEC

7 ARTUR MINKIN, SEC

8 ANA GUARDADO, Ripple Labs

9 STELLA UVAYDOVA, SEC

10 DEREK LETELLIER, Videographer

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1	INDEX		
2	WITNESS		EXAMINATION
3	DANIEL FISCHEL		
4	EXAMINATION BY MR. HANAUER		9
5			
6	EXHIBITS		
7			
8	NUMBER		MARKED FOR ID
9	Fischel Deposition Exhibit		
10	Exhibit DF-1	Expert Rebuttal Report of Daniel R. Fischel	19
11		Dated November 12, 2021	
12	Exhibit DF-2	Amended Expert Report of [REDACTED], Ph.D. dated	63
13		October 6, 2021	
14	Exhibit DF-3	Article: Announcement Effects in the	73
15		Cryptocurrency Market by Mohammad Hashemi Joo	
16	Exhibit DF-19	Model Calculations	126
17	Exhibit DF-12	Declaration of Daniel R. Fischel In Re: Shah, et	217
18		al., v. Zimmer Biomet	
19		Holdings, Inc., et al.	

\*\*\* EXHIBITS BOUND SEPARATELY \*\*\*



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE VIDEOGRAPHER: This is media unit one.  
2 We are now on the video record.

3 This is the videotaped deposition of  
4 Daniel Fischel being taken on February 28, 2022.

09:17 5 The time is now 9:17 a.m. as indicated on the  
6 video screen. We are located at 110 North  
7 Wacker Drive, Suite 3800, Chicago, Illinois.

8 This deposition is being taken on  
9 behalf of the plaintiff and video recorded on  
09:17 10 behalf of the plaintiff in the matter of  
11 Securities and Exchange Commission versus Ripple  
12 Labs, Inc., et al. The case number is  
13 20-Civ-10832, filed in the United States  
14 District Court, Southern District of New York.

09:17 15 My name is Derek Letellier, certified  
16 legal videographer representing Gradillas Court  
17 Reporters with offices in Glendale, California.  
18 The court reporter today is Cheryl Sandeckki also  
19 of Gradillas Court Reporters.

09:17 20 Counsel, please identify yourselves for  
21 the video record and state the parties that you  
22 represent.

23 MR. HANAUER: I think we usually just type  
24 them in.

09:17 25 THE VIDEOGRAPHER: Okay, that's fine. If the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 court reporter could please swear in the  
2 witness.

3 (Witness administered an oath.)

4 DANIEL FISCHEL,  
5 having been first administered an oath, was  
6 examined and testified as follows:

7 EXAMINATION

8 BY MR. HANAUER:

9 Q. Could you please state and spell your  
09:18 10 name for the record please?

11 A. Daniel Robert Fischel, F-i-s-c-h-e-l.

12 Q. And good morning, Mr. -- or Professor  
13 Fischel. My name is Ben Hanauer. I represent  
14 the plaintiff, the SEC in this case.

09:18 15 Is there any reason why you cannot give  
16 accurate testimony today?

17 A. No.

18 Q. And how many preparation sessions did  
19 you have for today's deposition?

09:18 20 A. Well, I had many, many discussions with  
21 people that I work with at Compass Lexecon and  
22 then I had one Zoom call with several counsel.

23 Q. Counsel for Ripple in this case?

24 A. Yes. I assume counsel for Ripple or  
09:19 25 whoever else.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. Which counsel was it? Who was it?

2 A. For -- well, certainly for Ripple, but  
3 I don't know if Ripple is the only -- you know,  
4 in other words, the defendant -- there is more  
09:19 5 than one defendant.

6 Q. So who were the attorneys on the Zoom  
7 call you just referenced?

8 A. Well, Mr. Figel was on. Mr. Flumenbaum  
9 was on. I believe there was an attorney from  
09:19 10 Cleary on. There might have been some others.

11 Q. And that was the only preparation  
12 session you had with counsel to prepare for  
13 today's deposition?

14 A. That's right.

09:19 15 Q. And did you review -- in preparing for  
16 today's deposition, did you review any documents  
17 other than the ones cited in your report that  
18 you have considered in forming any opinion that  
19 you will express in this case?

09:20 20 A. I looked at some of the studies on  
21 studying whether cryptocurrencies trade in an  
22 efficient market, some of the ones cited in my  
23 report but also some others. I can't think of  
24 anything else that I reviewed.

09:20 25 Q. And the ones you didn't cite in your

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 report, will you be disclosing those?

2 A. I have no objection to it. But it's  
3 certainly not up to me.

4 Q. What are they?

09:20 5 A. I don't know the titles, but the --  
6 there have been other articles written in  
7 addition to the ones cited by Dr. [REDACTED]. And we  
8 just did a more complete literature search.

9 Q. And who is "we"?

09:21 10 A. My firm, Compass Lexecon.

11 Q. And you considered those studies?

12 MR. FIGEL: Objection.

13 THE WITNESS: Well, considered, yes, in the  
14 sense that I looked at them.

09:21 15 BY MR. HANAUER:

16 Q. And did those -- did you consider those  
17 studies in forming any opinion you will be  
18 expressing in this case?

19 A. I would say for the most part, they  
09:21 20 were consistent with the opinions that I did  
21 express in my report.

22 MR. HANAUER: Well, in that case, Counsel,  
23 we're just going to put on the record that we  
24 request that you disclose those studies pursuant  
09:21 25 to Rule 26.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Your request is noted. We will  
2 take it under advisement.

3 BY MR. HANAUER:

4 Q. Professor Fischel, how many times have  
09:21 5 you had your deposition taken as an expert  
6 witness?

7 A. I haven't counted, but I would say a  
8 significant number of times.

9 Q. More than 200?

09:22 10 A. I don't think more than 200. Probably  
11 more than 100, but I don't think more than 200.

12 Q. And if -- for the depositions you've --  
13 the depositions that were taken of you as an  
14 expert witness, those are listed on Appendix A  
09:22 15 to your report?

16 A. Yes, they should be.

17 Q. How many times have you testified at  
18 trial as an expert witness?

19 A. Also I haven't counted, but a  
09:22 20 significant number of times as well.

21 Q. More than 50?

22 A. Probably more than 50.

23 Q. In this case, this lawsuit, were you  
24 ever retained in a nontestifying or consulting  
09:23 25 capacity?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 You can answer.

3 THE WITNESS: My understanding is that we are  
4 always retained in a nontestifying capacity  
09:23 5 until a decision is made to disclose, so in this  
6 case, me as an expert.

7 BY MR. HANAUER:

8 Q. How many of your testifying expert  
9 witness cases were you engaged by the  
09:23 10 government?

11 A. I don't know the exact number. But,  
12 you know, a number of times.

13 Q. Would you say it's a large or a small  
14 percentage of your engagements?

09:23 15 A. Well, as a percentage of the total, you  
16 know, probably pretty small but, you know, in  
17 some very important cases.

18 Q. When was the last time you provided us  
19 expert testimony on behalf of the government?

09:24 20 A. I testified in a case, it was a couple  
21 years ago, in connection with the Chrysler  
22 bankruptcy. I'm sure it's on my CV and it's a  
23 long-reported decision that came out of that  
24 case.

09:24 25 Q. And who did you represent -- who

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 retained you in that case?

2 A. The justice department.

3 Q. Was that a criminal matter?

4 A. No.

09:24 5 Q. When was the last time you were  
6 retained as an expert witness by the government  
7 in a prosecution or enforcement matter?

8 A. In the last couple weeks.

9 Q. And what case was that?

09:24 10 A. It's -- it hasn't been disclosed yet,  
11 so I'm not going to disclose it.

12 Q. You were engaged to be a testifying  
13 expert?

14 A. You know, again, usually the  
09:25 15 understanding, even if it's not explicit, is we  
16 are retained to provide expert services and a  
17 decision is made at a subsequent point in time  
18 as to who is going to -- if anyone, is going to  
19 be a testifying expert.

09:25 20 Q. Do you have any employment other than  
21 being a law professor and your work at Compass  
22 Lexecon?

23 A. Well, I would say right now my formal  
24 sole employment is with Compass Lexecon, even  
09:25 25 though I still have very close connections to

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 the University of Chicago, not just the law  
2 school.

3 Q. So are you still a professor at the  
4 University of Chicago?

09:26 5 A. I still have my title. I haven't  
6 actively taught in the last couple of years. I  
7 keep trying to fit it in because I'm always  
8 asked. But the last couple of years I've just  
9 gotten too busy to do it.

09:26 10 Q. Do you still receive a salary or  
11 compensation from the University of Chicago?

12 A. No. But even when I was an active  
13 faculty member, I donated all my compensation  
14 back. So that really hasn't changed.

09:26 15 But as I said, I'm still very much  
16 involved with the university.

17 Q. How much of your professional time do  
18 you spend working as an expert witness as  
19 opposed to being involved as a professor?

09:26 20 MR. FIGEL: Objection.

21 You can answer.

22 THE WITNESS: You know, I would say now and  
23 in the recent past really a hundred percent of  
24 my professional time is associated with my work  
09:27 25 and role at Compass Lexecon.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. In your role as a testifying expert,  
3 has your expert testimony ever been excluded for  
4 any reason?

09:27 5 A. For any reason? I guess I would have  
6 to say yes to that.

7 Q. How many times?

8 A. You know, not very many and for, you  
9 know, a series of different kind of reasons,  
09:27 10 too. But I would say not on substance or  
11 credentials, rather on other disclosed too late  
12 or in one well-known case, the defendant's  
13 disclosure was deemed by the District Court to  
14 be inadequate and that led to a long series of  
09:28 15 follow-up appellate and on bond-cum litigation  
16 all involving the justification for the -- by  
17 the District Court to allow me to testify as a  
18 summary witness but not as an expert witness.

19 So -- and I guess there was one --

09:28 20 Q. What case was that, sir?

21 A. The criminal case, the United States  
22 versus Nacchio. And then there was --

23 Q. In the Nacchio case, you performed an  
24 event study in that case?

09:29 25 A. I don't remember. Very possibly, but I

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 don't remember.

2 Q. And I'm sorry, you were mentioning  
3 another case when you spoke?

4 A. I just don't want my answer to be  
09:29 5 incomplete and, therefore, misleading.

6 There was another case, the Pfizer  
7 Securities Fraud Case in the Second Circuit  
8 where a District Court did exclude my testimony.  
9 Again, it's a complicated story behind that.

09:29 10 But then the Court of Appeals reversed the  
11 District Court. Let me just finish, just to  
12 give a complete answer.

13 The Court of Appeals ruled that -- if I  
14 remember correctly, that the District Court did  
09:29 15 not abuse its discretion in not allowing one  
16 minor calculation to be admitted into evidence.  
17 But the -- that was a very small part of my  
18 testimony. The Court of Appeals said the rest  
19 of my -- the District Court was reversed in not  
09:30 20 allowing the rest of my testimony to be  
21 presented to the jury.

22 Q. And that was the Pfizer securities  
23 litigation?

24 A. That's right.

09:30 25 Q. And you performed an event study in

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 that case?

2 A. I'm sure I performed an event study. I  
3 mean, I performed hundreds of event studies.  
4 And in any kind of securities fraud case, I'm  
09:30 5 sure I performed an event study.

6 Q. And the Second Circuit in the Pfizer  
7 case affirmed the District Court's finding that  
8 a portion of your testimony was unreliable?

9 A. One calculation -- small calculation, I  
09:30 10 think as the Court of Appeals stated or, more  
11 accurately, that the District Court did not  
12 abuse its discretion in that finding.

13 Q. Any other cases where your testimony  
14 was excluded?

09:31 15 A. Let's see. There was a case many years  
16 ago where one opinion out of three of my  
17 opinions -- it was actually a jointly-authored  
18 report and the District Court ruled that one out  
19 of three opinions, I think the court said,  
09:31 20 wasn't relevant, if I remember correctly.

21 Q. What case was that?

22 A. You know, if I looked at my CV, I could  
23 find it. But I don't remember the name of the  
24 case. It was a long time ago.

09:31 25 Q. And --

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A. I don't remember any others.

2 Q. You beat me to my question.

3 A. Yeah.

4 Q. So speaking of CV, probably a good time  
09:32 5 as any, I put in front of you exhibit that's  
6 been marked as DF-1. Do you see that?

7 A. Yes.

8 (Whereupon, Deposition  
9 Exhibit DF-1 was marked for  
09:32 10 identification.)

11 BY MR. HANAUER:

12 Q. And DF-1, that's a copy of the expert  
13 rebuttal report you submitted in this case?

14 A. Yes.

09:32 15 Q. And I would like to ask you some  
16 questions about your CV, which I believe is  
17 Appendix A to Exhibit DF-1.

18 A. Okay.

19 Q. How many times has a court refused to  
09:32 20 credit or to follow your expert opinion?

21 MR. FIGEL: Objection.

22 THE WITNESS: You know, I can't possibly  
23 answer that question. You know, if you mean a  
24 court did not rule in the way that -- or didn't  
09:33 25 base a ruling on my expert testimony or

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 disagreed with my expert testimony, I can't  
2 possibly answer that question.

3 BY MR. HANAUER:

4 Q. Okay. Has it been many times?

09:33 5 MR. FIGEL: Objection.

6 THE WITNESS: Well, I've testified a lot. I  
7 would say the overwhelming majority of times  
8 courts have -- where courts have commented on my  
9 testimony have credited, agreed with it, cited  
09:33 10 it, relied on it. And certainly there have been  
11 a few times where the opposite occurred, where a  
12 court disagreed with my testimony.

13 BY MR. HANAUER:

14 Q. So I would like to ask you, referring  
09:33 15 to page 4 of the appendix, the United States v.  
16 Bases and Pacilio case. You testified in that  
17 matter?

18 A. I did.

19 Q. Here in Chicago?

09:34 20 A. I did.

21 Q. And what was your -- that was only this  
22 past summer, correct?

23 A. That's right.

24 Q. And what was your opinion in that case?

09:34 25 A. That the economic evidence that I

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 reviewed did not support, it was really  
2 inconsistent with the government's allegations  
3 about spoofing.

4 Q. And the jury convicted the defendants  
09:34 5 in that case?

6 A. It was actually a mixed verdict. The  
7 jury acquitted on the spoofing count, which was  
8 the count that I testified about; and convicted  
9 on, I think, mail or wire-fraud counts, if I  
09:34 10 remember correctly.

11 Q. And I want to ask you about turning to  
12 page 9 of your CV. The Commodities Futures  
13 Trading Commission versus Oystacher case. It's  
14 the third one on page 9.

09:35 15 A. Yes, I see that.

16 Q. And you provided expert testimony at a  
17 preliminary injunction hearing in that case?

18 A. That's right.

19 Q. And you critiqued the opinion of the  
09:35 20 CFTC's expert witness?

21 A. That's correct.

22 Q. And Judge St. Eve in that case found  
23 that your critiques did not undermine the CFTC's  
24 expert's opinions?

09:35 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: You know, I would want to see  
2 the opinion. I basically remember the court --  
3 well, I don't want to -- I don't want to  
4 speculate. I would rather see the opinion.

09:35 5 BY MR. HANAUER:

6 Q. And on the next page of your CV,  
7 page 10, you referenced SEC versus Wiley case.

8 A. Yes, I remember that case.

9 Q. And you provided trial testimony for  
09:36 10 the defendant?

11 A. I can't remember if it was a trial or  
12 some kind of preliminary injunction hearing or  
13 something. But I certainly testified for the  
14 defendant.

09:36 15 Q. What was your opinion in that case?

16 A. You know, as you go farther back in  
17 time, I just need to see. If you have a copy,  
18 show it to me and I'll -- it will refresh my  
19 recollection.

09:36 20 Q. You don't remember as we sit here  
21 today?

22 A. I don't remember it well; well enough  
23 to describe.

24 Q. If you go to page 14 of your case --  
09:37 25 I'm sorry, of your CV. And do you see the case

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 near the middle of the page SEC versus Carl  
2 Jasper?

3 A. I do.

4 Q. In that case you performed an event  
09:37 5 study on behalf of the defendant?

6 A. Actually, you know, that's over ten  
7 years ago. I have no recollection what that  
8 case was about.

9 Q. And going to page 17 of your CV, the  
09:37 10 second case is a case called United States  
11 versus Sanjay Kumar?

12 A. Yes, I remember that case.

13 Q. And in that case you provided an  
14 opinion that challenged the government's expert  
09:38 15 witness's event study?

16 MR. FIGEL: Objection.

17 THE WITNESS: I don't know if that's really a  
18 fair characterization of what I did. I remember  
19 I challenged the government's calculation of  
09:38 20 economic loss, if I remember correctly, in a  
21 sentencing hearing.

22 BY MR. HANAUER:

23 Q. And in that case the court accepted the  
24 government's expert opinion and did not accept  
09:38 25 yours?



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: Yeah, that's correct, to the  
3 best of my recollection.

4 BY MR. HANAUER:

09:38 5 Q. Then going to page 29 of your CV, in  
6 the middle of the page, do you see a case called  
7 SEC versus First City Finance Corporation?

8 A. Yes, I see that.

9 Q. I know it's going a little bit back.  
09:39 10 But do you --

11 A. That's 25 years ago.

12 Q. Did you provide expert testimony for  
13 the defendant in that case?

14 A. Yeah, I was going to say I think it was  
09:39 15 an affidavit, but it says it's testimony, so it  
16 was probably testimony.

17 Q. Do you remember anything about that  
18 testimony?

19 A. Believe it or not, I do.

09:39 20 I think it was about the economic  
21 consequences of a 13(d) filing, if I remember  
22 correctly.

23 Q. And in that case the court determined  
24 that your opinion relied on purely speculative  
09:39 25 hypothetical figures?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: You know, again, something that  
3 specific I would have to look.

4 BY MR. HANAUER:

09:39 5 Q. When was the last time that you  
6 provided expert testimony against the government  
7 and the defendant was found not guilty or not  
8 liable?

9 MR. FIGEL: Objection.

09:40 10 THE WITNESS: So it can't be the times I've  
11 testified for the government and the courts have  
12 relied and cited extensively my testimony,  
13 you're not including that in your question?

14 BY MR. HANAUER:

09:40 15 Q. That's not part of my question.

16 A. I don't remember.

17 Q. Who retained you in this case?

18 A. I think I was originally retained by  
19 the -- at least in terms of who contacted me,  
09:40 20 the Kellogg Hansen firm.

21 Q. And is -- did you sign like an  
22 engagement letter or something like that?

23 A. I don't know because sometimes we have  
24 engagement letters, sometimes we don't depending  
09:41 25 on typically whether the client that's retaining

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 us wants an engagement letter.

2 Q. Who is the client that's retaining you  
3 in this case?

4 A. Well, as I said, I believe it's all the  
09:41 5 defendants, but I'm not a hundred percent sure  
6 of that.

7 I know the company Ripple is retaining  
8 us and possibly the other defendants as well.

9 Q. Are you providing testimony on behalf  
09:41 10 of either of the individual defendants in this  
11 case?

12 MR. FIGEL: Objection.

13 THE WITNESS: The testimony that I'm giving  
14 is what's contained in my report and whatever --  
09:41 15 and my answers to questions. As I said, I -- I  
16 know that I'm being retained by Ripple. I  
17 assume I'm being retained by the other  
18 defendants, but I'm not a hundred percent sure.

19 BY MR. HANAUER:

09:42 20 Q. Your hourly rate on this engagement is  
21 \$1,750?

22 A. That's right.

23 Q. Is that your standard rate?

24 A. Yes.

09:42 25 Q. When did you last raise rates?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A. Maybe a couple years ago.

2 Q. When were you first retained in this  
3 case?

4 A. Well, the -- I don't remember exactly,  
09:42 5 but, you know, probably sometime in 2021.

6 Q. Were you and Compass Lexecon retained  
7 at the same time?

8 A. Compass Lexecon would be the party that  
9 was retained. I'm not typically, or to the best  
09:43 10 of my recollection, ever separately retained  
11 from Compass Lexecon.

12 Q. You're the chairman and president of  
13 Compass Lexecon?

14 A. I am.

09:43 15 Q. Are you also the founder?

16 A. No.

17 Q. How long have you been with Compass  
18 Lexecon?

19 MR. FIGEL: Objection.

09:43 20 THE WITNESS: Well, Compass Lexecon is the  
21 successor firm to Lexecon. If you count the  
22 times when it was just Lexecon, I think I  
23 affiliated with Lexecon the first time, I think,  
24 in 1981, if I remember correctly.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you found Lexecon?

3 A. No.

4 Q. How many Compass Lexecon experts have  
09:44 5 been retained in this case?

6 MR. FIGEL: Objection.

7 THE WITNESS: Well, if you mean formal  
8 employees of Compass Lexecon, I think I'm the  
9 only one, as far as I know.

09:44 10 Although I'm not exactly sure whether  
11 Laurentius Morais is an employee or  
12 an independent contractor. I believe Allen  
13 Ferrell is an independent contractor.

14 Those are the experts that I'm aware of  
09:44 15 that, you know, we have some relationship with.

16 BY MR. HANAUER:

17 Q. Anyone else?

18 A. Not that I know of or not that I can  
19 think of. But it's possible that there are  
09:45 20 other experts that I'm just not aware of.

21 Q. How many other engagements have you  
22 done for Ripple?

23 A. None as far as I'm aware.

24 Q. And when I say "Ripple," do you  
09:45 25 understand that I'm referring to the defendant

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 in this case?

2 A. Yes, I understand that.

3 MR. FIGEL: Objection, Mr. Hanauer. I assume  
4 when you talk about defendant, you're going to  
09:45 5 distinguish among Ripple and the individual  
6 defendants?

7 MR. HANAUER: Thank you, Counsel.

8 BY MR. HANAUER:

9 Q. I'll clare -- when I talk about  
09:45 10 Ripple -- or when I say "Ripple," you understand  
11 that to mean the defendant Ripple Labs in this  
12 case?

13 A. Yes, that's what I understand.

14 Q. How many engagements have you done for  
09:45 15 the Kellogg Hansen firm?

16 MR. FIGEL: You can answer it with a number  
17 to start with.

18 THE WITNESS: You know, again, I -- a  
19 nontrivial number, but I -- over a long period  
09:46 20 of time. I don't know the exact number.

21 BY MR. HANAUER:

22 Q. More than ten?

23 A. It might be more than ten. Maybe right  
24 around ten, just as a rough -- just as a rough  
09:46 25 guess.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. How many engagements have you done for  
2 the Debevoise law firm?

3 MR. FIGEL: Again, why don't you start with a  
4 number, if you know.

09:46 5 THE WITNESS: Yeah, I want some clarification.  
6 Do you want me personally or the firm?

7 BY MR. HANAUER:

8 Q. Well, let's start with you.

9 A. Because if these questions are for the  
09:46 10 firm, I really don't know. I can only speak  
11 about the times I've -- I personally can  
12 remember being involved in a case with the  
13 Debevoise law firm only.

14 You know, again, a nontrivial number.  
09:46 15 I don't know the exact number.

16 Q. Around the same as the Kellogg firm?

17 MR. FIGEL: Objection.

18 THE WITNESS: Maybe a little less, but, you  
19 know, again, it's over a lot of years, so I'm  
09:47 20 not a hundred percent sure.

21 BY MR. HANAUER:

22 Q. On this case, did the other testifying  
23 Compass Lexecon experts and their support teams  
24 coordinate any of their analysis or opinions?

09:47 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: Well, I can't speak for others.  
2 I can only speak for myself.

3 I did not coordinate with anyone.

4 BY MR. HANAUER:

09:47 5 Q. And does Compass Lexecon have any  
6 processes or checks installed in place to ensure  
7 that teams work independently and do not overlap  
8 or coordinate?

9 MR. FIGEL: Objection.

09:47 10 THE WITNESS: I think that would be a  
11 case-by-case determination on whether those  
12 kinds of separations, structural separations,  
13 are required.

14 BY MR. HANAUER:

09:48 15 Q. Were any employed in this case?

16 MR. FIGEL: Objection.

17 THE WITNESS: In terms of formal directions  
18 that -- of the teams would be completely  
19 separate, I would say no.

09:48 20 BY MR. HANAUER:

21 Q. How many hours did you work on this  
22 engagement between the time you were engaged and  
23 the completion of your report?

24 A. I don't remember exactly. You know, as  
09:48 25 a rough guess, I would say somewhere between 25



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 and 50 but -- hours, but I'm not sure. I would  
2 have to check.

3 Q. And how many hours have you billed  
4 since completing your report?

09:49 5 MR. FIGEL: Objection.

6 THE WITNESS: You know, again, in terms of  
7 the -- not all the time has been recorded yet,  
8 so, you know, I'll just give the same rough --  
9 excuse me, the same rough guess, you know, maybe  
09:49 10 somewhere between 25 and 50.

11 BY MR. HANAUER:

12 Q. How much money has Compass billed to  
13 Ripple on this case in total?

14 MR. FIGEL: Objection.

09:49 15 THE WITNESS: I don't know.

16 BY MR. HANAUER:

17 Q. How are you compensated by Compass?

18 MR. FIGEL: Objection.

19 THE WITNESS: I get a hundred percent of my  
09:49 20 hourly rate. And then I also get some share of  
21 the overall profits of Compass Lexecon.

22 BY MR. HANAUER:

23 Q. Do you receive a portion of the rates  
24 charged by other experts and staff working on  
09:50 25 this litigation?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A. No.

2 Q. But the full 1,750 an hour, that goes  
3 to you?

4 A. Yes.

09:50 5 Q. You've been on emeritus status at the  
6 University of Chicago since 2006?

7 A. I don't know the exact year, but  
8 approximately that's right.

9 Q. When was the last article or  
09:50 10 publication that you authored?

11 A. It's on my CV, so whatever that is.

12 Q. Why don't we just take a look so we  
13 have it in the record.

14 A. Okay. It looks like 2006.

09:51 15 Q. Do you consider yourself an expert in  
16 the field of blockchain technologies?

17 A. No.

18 Q. Do you consider yourself an expert in  
19 the field of digital assets or cryptocurrencies?

09:51 20 A. No.

21 Q. Have you ever owned any digital assets  
22 or cryptocurrencies?

23 A. No.

24 Q. Are you an expert on the issue of  
09:51 25 whether digital assets are securities under the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 federal securities laws?

2 MR. FIGEL: Objection.

3 THE WITNESS: Well, first of all, that's a  
4 legal question, so I'm not offering any legal  
09:52 5 testimony. But apart from that, the answer is  
6 no.

7 BY MR. HANAUER:

8 Q. Are you offering an opinion on how  
9 courts interpret the term "investment contract"  
09:52 10 as it relates to the federal securities laws?

11 A. That's the same answer as I just gave.  
12 It's a legal question. I'm not offering any  
13 legal opinions. And in addition to that, the  
14 answer is no.

09:52 15 Q. Will you be offering an opinion whether  
16 any XRP transaction constituted or involved  
17 sales or offers of investment contracts?

18 MR. FIGEL: Objection.

19 THE WITNESS: Again, that's a legal opinion.  
09:52 20 I will not be offering any opinion like that.

21 BY MR. HANAUER:

22 Q. Are you offering or will you be  
23 offering any opinion on whether any transaction  
24 qualifies for an exemption from registration  
09:53 25 under the federal securities laws?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           A.     That's the same answer as my last  
2 several answers. That's a legal question. I'm  
3 not offering any legal opinions.

4           And apart from that, I'm not going to  
09:53 5 -- I don't have expertise on that issue.

6           Q.     How many times have you provided an  
7 expert opinion related to an event study?

8           MR. FIGEL: Objection.

9           You can answer.

09:53 10          THE WITNESS: Countless numbers of times.

11 BY MR. HANAUER:

12          Q.     How many times have you performed an  
13 event study as an expert witness?

14          MR. FIGEL: Objection.

09:53 15          THE WITNESS: Hundreds, if not thousands of  
16 times.

17 BY MR. HANAUER:

18          Q.     Have you ever performed an event study  
19 related to a digital asset or cryptocurrency?

09:54 20          A.     No, not that I can think of.

21          Q.     Are you offering any opinion whether  
22 there are specific adjustments that should be  
23 made to an event study for digital assets as  
24 compared to an event study for stocks?

09:54 25          MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: Well, I don't know if I would  
2 say adjustments is the right word. I do think  
3 one of the issues that always comes up with  
4 event studies is the relationship between event  
09:54 5 studies and the existence of efficient markets.  
6 I'm extremely familiar with that issue.

7 And I do think there is a fundamental  
8 difference between the use or the appropriate  
9 use of event studies in connection with  
09:55 10 cryptocurrencies as compared with, for example,  
11 event studies in connection with publicly-traded  
12 stocks on the New York Stock Exchange or NASDAQ  
13 or any organized exchange, assuming that those  
14 stocks on those exchanges satisfy the criteria  
09:55 15 for an efficient market.

16 BY MR. HANAUER:

17 Q. So I understand that, but I guess my  
18 question is: Are you offering an opinion about  
19 any specific adjustments that should be made to  
09:55 20 an event study for digital assets as compared to  
21 an event study for stocks?

22 MR. FIGEL: Objection.

23 THE WITNESS: I guess the specific adjustment  
24 is whether it's appropriate to use an event  
09:55 25 study other than as a test for whether or not

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 cryptocurrencies trade in an efficient market.

2 BY MR. HANAUER:

3 Q. And I would -- what's your answer to  
4 whether an event study is an appropriate test  
09:56 5 for whether -- actually, strike that.

6 Again, I understand you're that saying  
7 that there are differences between crypto  
8 markets and stock markets. But are you going to  
9 give the opinion that an adjustment needs to be  
09:56 10 made to an event study for crypto assets as  
11 opposed to an event study for stocks?

12 MR. FIGEL: Objection.

13 THE WITNESS: I've answered that question  
14 several times. I think there is no event study  
09:56 15 in the academic literature that finds that  
16 cryptocurrencies trade in an efficient market.  
17 And that raises the question, given that  
18 finding -- and I discussed this in my report --  
19 as to whether it's appropriate to use an event  
09:57 20 study to reach conclusions about the  
21 relationship between information and price  
22 movements in the cryptocurrency context as  
23 compared with the context where stocks trade in  
24 an efficient market, such as the situations that  
09:57 25 I've just described.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. When you perform an event study for  
3 expert testimony, does your expert report  
4 typically include a description of the important  
09:57 5 steps in your methodology?

6 MR. FIGEL: Objection.

7 THE WITNESS: Well, that's a pretty vague  
8 question.

9 You know, I guess I frequently discuss  
09:58 10 what's generally referred to as the Cammer  
11 factors, which are criteria which are frequently  
12 recognized as criteria for determining whether  
13 stocks or bonds or, I guess, any financial asset  
14 trade in a financial -- trade in an efficient  
09:58 15 market.

16 So I guess in that sense, I would say  
17 yes.

18 BY MR. HANAUER:

19 Q. When you perform an event study, do you  
09:58 20 first start with identifying all significant  
21 price changes and then check to see if those  
22 changes can be linked to news, or do you start  
23 by identifying news and then check to see if  
24 there was a price reaction to the news  
09:58 25 announcement?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: Well, you know, first of all, I  
3 would say every case depends on the relevant  
4 facts and circumstances depending on the  
09:59 5 question being analyzed.

6 But, generally speaking, in event  
7 studies, you have particular periods of time  
8 that you're analyzing, and you analyze the  
9 relationship between price movements and what  
09:59 10 happened in connection with events or the lack  
11 of events on particular days.

12 BY MR. HANAUER:

13 Q. But do you first look for price changes  
14 of an asset and then see if those price changes  
09:59 15 can be linked to news, or do you start with news  
16 and then look to see if the news is linked to  
17 price changes?

18 MR. FIGEL: Objection.

19 THE WITNESS: As I said, every case is  
09:59 20 different. So it depends on the relevant facts  
21 and circumstances, but I would say most  
22 typically neither of the alternatives that you  
23 just posited.

24 Most typically you look at days. If  
10:00 25 you're looking at -- and whatever the relevant



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 period of time is in connection with the inquiry  
2 that you're providing, you look at all the days  
3 and you look at the -- you have a -- you form a  
4 statistical model and you perform a -- one or  
10:00 5 more regressions to analyze, as I said, the  
6 relationship between price movements, or the  
7 lack of price movements, on a set of days that  
8 you are analyzing.

9 BY MR. HANAUER:

10:00 10 Q. In event studies that involve repeated  
11 public announcements or repeated the news  
12 announcements, do you typically only use the  
13 date of the earliest news release, or do you  
14 include all event days when that same news is  
10:01 15 repeated?

16 MR. FIGEL: Objection.

17 THE WITNESS: There's a difference between  
18 what you look at and how you interpret what you  
19 look at.

10:01 20 In terms of what you look at, generally  
21 speaking, you don't make subjective judgments as  
22 to which days you look at. You look at all the  
23 days. And then how you interpret the results  
24 depends on, you know, again, the particular  
10:01 25 facts and circumstances that you're analyzing.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           So that if you see that there is a  
2 series of days that have similar information or  
3 identical information being disclosed, you take  
4 that into account in how you interpret the  
10:02 5 results.

6 BY MR. HANAUER:

7           Q.    If the same news is announced on  
8 multiple days, do you treat each day where there  
9 is the same announcement as an event day?

10:02 10          MR. FIGEL:  Objection.

11          THE WITNESS:  Again, it just doesn't really  
12 capture the typical way that event studies are  
13 performed.  You look at all the days.

14                Again, speaking at a high level of  
10:02 15 generality, because as I said, every case is  
16 different and you always have to take into  
17 account the relevant facts and circumstances,  
18 but you don't make subjective judgments about  
19 what's an event day.

10:02 20                You look at all the days, and then you  
21 see what happens on each day, if anything, and  
22 what price reaction occurred on each day, if  
23 anything.  And you interpret the data as  
24 appropriate depending on the relevant facts and  
10:03 25 circumstances.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Before you perform an event study as an  
3 expert witness, do you always check whether the  
4 market for the financial product at issue is  
10:03 5 sufficiently efficient?

6 MR. FIGEL: Objection.

7 THE WITNESS: I would say either explicitly  
8 or implicitly, yes, I think you do.

9 BY MR. HANAUER:

10:03 10 Q. And what's the difference about how you  
11 go about checking efficiency explicitly or  
12 implicitly?

13 MR. FIGEL: Objection.

14 THE WITNESS: Well, many of my expert reports  
10:03 15 go through the various Cammer factors, as I  
16 stated, so I would say that's an explicit  
17 treatment.

18 Sometimes there's no dispute and it's  
19 just obvious. So if you take a very actively  
10:04 20 traded stock on the New York Stock Exchange, for  
21 example, it might just be assumed by everyone  
22 that that stock trades in an efficient market so  
23 there's no need to demonstrate what's obvious.  
24 So, you know, that's also possible.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. So for certain of your event studies,  
3 you don't start by performing a Cammer analysis --

4 MR. FIGEL: Objection.

10:04 5 BY MR. HANAUER:

6 Q. -- C-A-M-M-E-R?

7 A. Yes, I'm sure that's true.

8 Q. Did anyone -- referring to your report  
9 in this case, Exhibit DF-1, did anyone assist  
10:04 10 you in preparing the report?

11 A. Yes.

12 Q. And who was that?

13 A. I would say three people particularly.  
14 David Gross, Eddie Grgeta, and Constance Kelly.

10:05 15 Q. And those three individuals, they are  
16 all affiliated with Compass?

17 A. They're all employees of Compass  
18 Lexecon, correct.

19 Q. Did you write the entirety of your  
10:05 20 report?

21 A. You mean did I draft every word, no.

22 Q. Who did? Or who else did?

23 A. You know, probably -- probably the  
24 latter two names that I mentioned were involved  
10:05 25 in the drafting, working under my supervision.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. Going through your report, are you able  
2 to discern what portions you wrote and what  
3 portions other people wrote?

4 A. No. Well, first of all, it's a very  
10:06 5 interactive process.

6 Secondly, there were multiple drafts  
7 that were written. And everyone was involved to  
8 some extent.

9 But as I said, I would say primarily  
10:06 10 the other people that did most of the drafting,  
11 initial drafting, under my supervision were  
12 Eddie Grgeta and Constance Kelly.

13 Q. And did those two folks, did they do  
14 most -- did they draft most of your report?

10:06 15 MR. FIGEL: Objection.

16 THE WITNESS: I would say they -- they were  
17 the most involved in implementing the opinions  
18 that I wanted to give.

19 And, again, the report is a product of  
10:07 20 multiple drafts. As I stated, it was very much  
21 of a cooperative project in terms of talking  
22 about it, thinking about it, organizing it,  
23 obviously, all done under my supervision and  
24 direction.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Was anything in your report written by  
3 Ripple's attorneys?

4 MR. FIGEL: Objection.

10:07 5 You can answer yes or no.

6 THE WITNESS: No.

7 BY MR. HANAUER:

8 Q. Did Ripple's attorneys direct you to  
9 write anything?

10:07 10 MR. FIGEL: Objection. Give me just a  
11 second, Mr. Hanauer.

12 Start with, you can answer yes or no.

13 THE WITNESS: No.

14 BY MR. HANAUER:

10:07 15 Q. Did you -- does your report incorporate  
16 comments from Ripple's attorneys?

17 MR. FIGEL: Objection.

18 You can answer yes or no.

19 THE WITNESS: I don't think so, no.

10:08 20 BY MR. HANAUER:

21 Q. And you testified that there were three  
22 Compass team members who primarily assisted in  
23 preparing your report; is that correct?

24 A. Yes. In thinking about the case,  
10:08 25 conceptualizing the case, discussing ideas about

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 the case, which ultimately led to the  
2 preparation of the report and continued work  
3 subsequently to the preparation of the work.  
4 Those three that I mentioned.

10:08 5 Q. And how many other Compass Lexecon  
6 personnel affiliated -- or assisted the three  
7 people you mentioned?

8 MR. FIGEL: Objection.

9 THE WITNESS: There were certainly some  
10:08 10 others. I don't know how many. I mean, I can  
11 think of a couple names, and I'm sure there were  
12 research assistants and others as well.

13 BY MR. HANAUER:

14 Q. How many Compass personnel billed time  
10:09 15 in relation to your report?

16 A. I don't know.

17 Q. Who prepared Exhibits 1 and 2 to your  
18 report?

19 A. Well, they were prepared after going  
10:09 20 through Dr. [REDACTED] backup. I'm actually not  
21 sure who actually, at least originally, went  
22 through Dr. [REDACTED] backup to get the data to  
23 prepare Exhibits 1 and 2.

24 Q. So understanding that you don't know  
10:10 25 who went through Dr. [REDACTED] backup data, do you

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 know who was the person that prepared Exhibits 1  
2 and 2 to your report?

3 MR. FIGEL: Objection.

4 THE WITNESS: Physically prepared the  
10:10 5 reports -- the exhibits, excuse me? No, I would  
6 say I went over the backup with the three people  
7 that I mentioned. But how that backup got  
8 physically translated into the exhibits, which,  
9 as I said I went over, specifically went over  
10:10 10 with the three people that I mentioned, I'm not  
11 sure.

12 BY MR. HANAUER:

13 Q. Is there anything in your report that  
14 is inaccurate?

10:10 15 A. Not that I know of.

16 Q. And when I say "your report," do you  
17 understand that I'm referring to Exhibit DF-1?

18 A. Yes, I understand that.

19 Q. Is there anything in your report that  
10:11 20 you need to correct?

21 A. Not that I'm aware of.

22 Q. Does your report contain a complete  
23 statement of all the opinions you will express  
24 in this case?

10:11 25 MR. FIGEL: Objection.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: Well, certainly, the opinions  
2 that I was aware of at the time of my report.  
3 I'm not aware of any other opinions as of now  
4 that I would express if asked. But, obviously,  
10:11 5 in cases of this complexity and magnitude,  
6 things might come up.

7 I haven't, you know, reviewed the  
8 testimony of Dr. [REDACTED], for example, or any other  
9 expert, you know, so I don't know what I could  
10:12 10 be asked, what additional work could be  
11 performed.

12 But as of now, I don't have any  
13 additional opinions to the ones that are  
14 expressed in my report.

10:12 15 BY MR. HANAUER:

16 Q. So, I take it, you will not be  
17 offering -- as you sit here today, are you aware  
18 of any opinions that you will offer in this case  
19 that are not contained in your report?

10:12 20 MR. FIGEL: Objection.

21 THE WITNESS: As I sit here today, I am not  
22 aware of any other opinions. But, as I said, in  
23 cases of this complexity and magnitude, it's my  
24 experience that things tend to come up, you keep  
10:12 25 working, you keep thinking of new things, you're

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 told about new things, you're aware of positions  
2 that are being taken in the case. So things  
3 could come up.

4 But as of now, I'm not aware of any  
10:12 5 additional opinions to the ones that are  
6 contained in my report.

7 BY MR. HANAUER:

8 Q. Have you been asked to prepare either a  
9 supplemental report or an additional report in  
10:13 10 this case?

11 MR. FIGEL: Start by answering yes or no.

12 THE WITNESS: No.

13 BY MR. HANAUER:

14 Q. Does your report contain all of the  
10:13 15 bases and reasons for the opinions you're  
16 offering?

17 MR. FIGEL: Objection.

18 THE WITNESS: I would say yes, combined with  
19 my experience and expertise.

10:13 20 BY MR. HANAUER:

21 Q. Does appendix -- why don't we just look  
22 at it. Can you pull up Appendix B to your  
23 report, please.

24 Does Appendix B to your report identify  
10:14 25 all the facts and data you considered in forming

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 the opinions expressed in your report?

2 A. That I relied on in my report, it  
3 should.

4 Q. Different question. Not relied on.  
10:14 5 Considered.

6 MR. FIGEL: Objection.

7 THE WITNESS: Well, "considered" is such a  
8 broad term. Anything that I came in contact  
9 with.

10:14 10 BY MR. HANAUER:

11 Q. "Considered" is the words from the  
12 federal rules, so that's why I'm using that  
13 word.

14 MR. FIGEL: Objection.

10:14 15 THE WITNESS: I would say considered in the  
16 way that I used the material for purposes of my  
17 report, I would say yes. But it's not all the  
18 material that I've ever seen in connection with  
19 this case. That's what I -- that's the  
10:14 20 distinction that I would draw.

21 BY MR. HANAUER:

22 Q. Just so the record is clear on this,  
23 does Appendix B to your report identify all the  
24 facts and data you considered in forming the  
10:15 25 opinions expressed in your report?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: Considered in the way that you  
3 described, yes.

4 BY MR. HANAUER:

10:15 5 Q. Does Appendix B list all of the  
6 academic literature and textbooks you considered  
7 in forming the opinions expressed in your  
8 report?

9 A. Yes, with the caveat that I mentioned  
10:15 10 in my earlier answer, that I'm aware of other  
11 articles that analyze the efficiency of  
12 cryptocurrency markets, other than those cited  
13 by Dr. [REDACTED] that I looked at in connection with  
14 the preparation of my report.

10:16 15 Q. And can you name any of those?

16 A. Not from memory, as I said earlier.

17 Q. Aside from those articles you just  
18 mentioned, are there any facts or data that you  
19 considered but did not rely upon for this  
10:16 20 engagement?

21 MR. FIGEL: Objection.

22 THE WITNESS: Well, that's really the  
23 distinction that I was drawing before. I'm sure  
24 I saw a lot of paper in this case that I'm not  
10:16 25 relying on. I don't know if that comes within

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 your definition of "considered."

2 BY MR. HANAUER:

3 Q. Did the articles you just mentioned  
4 that you said you reviewed but can't remember  
10:17 5 the names of them, were any of them published in  
6 peer-reviewed journals?

7 A. I believe so, yes.

8 Q. All of them?

9 A. I don't know.

10:17 10 MR. HANAUER: And, again, Counsel, I'll just  
11 repeat my request on the record for disclosure  
12 of those materials considered by Professor  
13 Fischel.

14 MR. FIGEL: We understand your request and we  
10:17 15 will take it under advisement.

16 BY MR. HANAUER:

17 Q. Apart from the information contained in  
18 the documents either identified in your report  
19 or in Appendix B to your report, did you  
10:17 20 consider any other facts or data in forming the  
21 opinions stated in your report?

22 MR. FIGEL: Objection.

23 THE WITNESS: I don't have anything to add to  
24 what I've already said. I don't recall anything  
10:17 25 that I considered in connection with forming my

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 opinions, but I don't want to say that I didn't  
2 see anything else in connection with my work in  
3 this case.

4 BY MR. HANAUER:

10:18 5 Q. Did you consider any of the SEC's  
6 interrogatory responses?

7 A. I think I -- didn't I cite some  
8 interrogatory responses by the SEC in my report?  
9 I think I did. Maybe I'm confusing that with --

10:18 10 Q. And I don't want to --

11 A. Footnote was what I was thinking of.

12 Q. Yeah. And I don't want to trip you up,  
13 Professor. It looks like under Legal Documents  
14 and Expert Reports, the only discovery response  
10:19 15 you have listed is the SEC's Answers to the  
16 First Set of Requests for Admission.

17 A. Yeah, that's what --

18 MR. FIGEL: Objection.

19 THE WITNESS: That's what I was just thinking  
10:19 20 of in footnote 33.

21 BY MR. HANAUER:

22 Q. Okay. So I'll repeat my question.

23 Did you consider any SEC interrogatory  
24 responses?

10:19 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: Not in forming my opinions. I  
2 don't remember if I ever saw any.

3 BY MR. HANAUER:

4 Q. Did you consider any request for  
10:19 5 admission responses other than the SEC's  
6 response to Defendant's First Set of Requests  
7 for Admissions?

8 MR. FIGEL: Objection.

9 THE WITNESS: Same answer. I don't recall  
10:19 10 one way or the other.

11 BY MR. HANAUER:

12 Q. Have you reviewed any deposition  
13 transcripts in this case?

14 A. I don't believe so. I certainly plan  
10:20 15 to look at Dr. [REDACTED] deposition at some point,  
16 but I haven't as of yet.

17 Q. Have you read any other deposition  
18 transcripts from this case?

19 A. No.

10:20 20 Q. You read the entirety of the amended  
21 complaint in this case?

22 A. Well, when you say "the entirety," if  
23 you mean every word, probably not.

24 Q. Are you offering the opinion that any  
10:20 25 factual allegation in the complaint is untrue?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: It's very hard to answer that  
3 question. I'm certainly not generally offering  
4 opinions about factual testimony one way or the  
10:21 5 other. But what comes within your definition of  
6 a "factual allegation," whether there is any  
7 overlap between whatever your definition is and  
8 the economic evidence and analysis that I  
9 discussed in my report, I don't know.

10:21 10 So I think you'd have to be a little  
11 bit more specific as to what you're including as  
12 a factual allegation.

13 BY MR. HANAUER:

14 Q. Do you have first-hand knowledge of any  
10:21 15 fact alleged in the complaint?

16 A. First-hand knowledge, no.

17 Q. In forming your opinions in this case,  
18 did you consider any of the statements Ripple  
19 made on its website?

10:22 20 MR. FIGEL: Objection.

21 THE WITNESS: I don't believe so, no.

22 BY MR. HANAUER:

23 Q. Did you consider any social media posts  
24 by Ripple or its personnel?

10:22 25 MR. FIGEL: Objection.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: No.

2 BY MR. HANAUER:

3 Q. Did you consider any Ripple promotional  
4 materials?

10:22 5 MR. FIGEL: Objection.

6 THE WITNESS: No.

7 BY MR. HANAUER:

8 Q. Did you speak with any purchasers or  
9 holders of XRP?

10:22 10 A. No, not to the best of my knowledge.

11 Q. Did you review any documents to  
12 determine any purchaser or holder, their intent  
13 for obtaining XRP?

14 MR. FIGEL: Objection.

10:22 15 THE WITNESS: No.

16 BY MR. HANAUER:

17 Q. Did you do anything to determine  
18 whether any purchaser intended to sell their XRP  
19 for a profit?

10:22 20 A. No.

21 Q. Did you do anything to determine  
22 whether any particular purchaser or holder  
23 intended to profit based on Ripple's efforts?

24 MR. FIGEL: Objection.

10:23 25 THE WITNESS: No.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Are you offering any opinion about the  
3 intent or expectation of any XRP purchaser or  
4 holder?

10:23 5 MR. FIGEL: Objection.

6 THE WITNESS: No.

7 BY MR. HANAUER:

8 Q. So we've been going a little bit more  
9 than an hour. I just want to check with you how  
10:23 10 you're doing on time and breaks.

11 A. I'm fine either taking a break or not  
12 taking a break, whatever your preference is or  
13 other people's preference.

14 MR. FIGEL: Why don't we take a break.

10:23 15 Before we go off the record, just a  
16 couple things. One, I assume we can have the  
17 standard understanding that an objection by one  
18 party constitutes an objection by all parties.

19 MR. HANAUER: So stipulated.

10:23 20 MR. FIGEL: And just since we are all dating  
21 ourselves, I believe the Belzberg case was 35  
22 years ago, not 25 years ago.

23 MR. HANAUER: Let's go off the record.

24 THE VIDEOGRAPHER: We are going off the  
10:24 25 record. The time is 10:24 a.m.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 (Whereupon, a recess was had at  
2 10:24 a.m., after which the  
3 deposition was resumed at  
4 10:44 a.m. as follows:)

10:44 5 THE VIDEOGRAPHER: We are back on the record.

6 The time is 10:44 a.m.

7 You may proceed.

8 BY MR. HANAUER:

9 Q. Professor Fischel, have you read  
10:44 10 Ripple's well submission that it submitted in  
11 this matter?

12 A. No.

13 Q. In preparing your report, did you  
14 consider any academic research or digital assets  
10:44 15 or cryptocurrencies?

16 A. The articles on cryptocurrencies and  
17 efficient markets that I mentioned. I can't  
18 think of anything else, but let me just check to  
19 make sure.

10:45 20 No. Other than that general category,  
21 I would say no.

22 Q. So with the exception of the two papers  
23 cited on Appendix B to your report, the Joo  
24 paper and the Feng paper, in preparing your  
10:45 25 report did you consider any other academic

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 literature relating to digital assets for  
2 cryptocurrencies?

3 MR. FIGEL: Objection.

4 THE WITNESS: I'm getting the -- the sequence  
10:45 5 of when I saw articles a little bit fuzzy in my  
6 mind. I can't remember if Dr. [REDACTED] cited more  
7 than those two. I think he did. But I  
8 certainly looked at every article that he cited  
9 on cryptocurrencies and efficient markets.

10:46 10 And as I said, I have looked at other  
11 articles besides those two, but I can't remember  
12 before or after. I know some after. But I  
13 can't remember if there were also some before  
14 other than those two.

10:46 15 MR. FIGEL: Excuse me, Mr. Hanauer, I'm not  
16 sure if the -- I had an objection to the last  
17 question. I'm not sure if that was the "chk."

18 THE COURT REPORTER: That was a check. I  
19 didn't hear. Speak a little louder.

10:46 20 MR. FIGEL: Okay. Will do.

21 BY MR. HANAUER:

22 Q. Are you disputing the conclusions of  
23 any academic paper cited by Mr. [REDACTED]?

24 A. Again, it's a pretty open-ended  
10:47 25 question. You'd have to show me which

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 conclusion or which paper you're referring to  
2 before I could answer one way or the other.

3 Q. Maybe we'll get to that in a little  
4 bit.

10:47 5 Do any of the opinions in your report  
6 rely on any assumptions?

7 MR. FIGEL: Objection.

8 THE WITNESS: Again, that's such a broad  
9 open-ended question.

10:47 10 You know, the term "assumptions" is  
11 pretty open-ended. But I think in terms of any  
12 of the opinions formally being based on any  
13 particular assumptions, I think the answer to  
14 that is no.

10:47 15 BY MR. HANAUER:

16 Q. Did Ripple's -- did Ripple or its  
17 attorneys ask you to make any assumptions in  
18 this case?

19 MR. FIGEL: Objection.

10:48 20 You can answer yes or no. Don't reveal  
21 any communications with Ripple's counsel.

22 THE WITNESS: No.

23 BY MR. HANAUER:

24 Q. Are you offering any opinions related  
10:48 25 to the conduct of the individual defendants in

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 this case, Mr. Garlinghouse or Mr. Larsen?

2 MR. FIGEL: Objection.

3 THE WITNESS: I don't believe so, no.

4 BY MR. HANAUER:

10:48 5 Q. Will you be offering any opinion  
6 related to industry custom and practice?

7 A. No.

8 Q. Will you be offering an opinion related  
9 to any of the defendants' affirmative defenses?

10:48 10 MR. FIGEL: Objection.

11 THE WITNESS: You have to tell me what they  
12 are.

13 BY MR. HANAUER:

14 Q. As you sit here today, can you think of  
10:48 15 any opinion you're offering related to any of  
16 the defendants' affirmative defenses?

17 A. I don't know because I don't know what  
18 the affirmative defenses are from memory.

19 Q. Are you offering -- will you be  
10:49 20 offering any opinion related to Ripple's fair  
21 notice defense?

22 MR. FIGEL: Objection.

23 THE WITNESS: No.

24 BY MR. HANAUER:

10:49 25 Q. Will you be offering an opinion related

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 to either of the individual defendants' scienter  
2 defenses?

3 MR. FIGEL: Objection.

4 THE WITNESS: No. I mean, obviously the  
10:49 5 opinions I'm offering are the ones in my report.  
6 So if there is any overlap between any of my  
7 opinions in my report and any of your questions,  
8 you know, obviously my -- I'm expected to  
9 testify if asked about my report.

10:49 10 But in connection with all the  
11 questions that you're asking me, I don't expect  
12 to, at least as of now, offer any additional  
13 opinions beyond what's in my report on those  
14 subjects.

10:49 15 BY MR. HANAUER:

16 Q. The opinions you offer in this case are  
17 rebuttals to opinions offered by Dr. [REDACTED] in his  
18 amended report dated October 6, 2021?

19 A. Again, I'm not sure of the date. But  
10:50 20 they are rebuttal opinions to the opinions of  
21 Dr. [REDACTED]. That's correct.

22 Q. And just so it's in the record, a copy  
23 of Dr. [REDACTED] report, that's Exhibit DF-2?

24 A. Yes, I see that. I wasn't aware of it.  
10:50 25 I see the date as well.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 (Whereupon, Deposition

2 Exhibit DF-2 was marked for

3 identification.)

4 BY MR. HANAUER:

10:50 5 Q. Do your opinions in this case pertain  
6 solely to the opinions set forth in Dr. [REDACTED]  
7 report?

8 MR. FIGEL: Objection.

9 THE WITNESS: It's really an ambiguous  
10:50 10 question. Some of the opinions are based on  
11 economic theory or literature that's not based  
12 on Dr. [REDACTED] more general.

13 But the opinions I'm offering in the  
14 case are rebuttal opinions to the opinions of  
10:51 15 Dr. [REDACTED].

16 BY MR. HANAUER:

17 Q. Are you offering any rebuttal opinions  
18 to Dr. [REDACTED] rebuttal to Dr. Ferrell's report?

19 A. Same answer as I gave a minute ago.  
10:51 20 Not specifically, except to the extent that  
21 something in my report can be characterized as  
22 also relevant to a criticism of -- in responding  
23 to a criticism of Dr. Ferrell's report --  
24 Professor Ferrell's report.

10:52 25 Q. Have you read Dr. [REDACTED] rebuttal



CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 report?

2 A. You mean this exhibit, whatever it is,  
3 Exhibit 2?

4 Q. No. The rebuttal expert report that  
10:52 5 Dr. [REDACTED] has submitted in this case.

6 A. I don't believe so, no.

7 Q. Will you be offering opinions regarding  
8 any of the SEC's experts other than Dr. [REDACTED]?

9 MR. FIGEL: Objection.

10:52 10 THE WITNESS: Same answer. Again, not  
11 specifically as far as I know, other than to the  
12 extent that the opinions in my report have some  
13 relevance, if they do, to responding to claims  
14 by other experts as well.

10:53 15 BY MR. HANAUER:

16 Q. And if I refer to Dr. [REDACTED] report, do  
17 you understand that I'm referring to Exhibit  
18 DF-2?

19 A. That is what I understand, correct.

10:53 20 Q. Have you reviewed any of the SEC's  
21 expert reports in this case other than  
22 Dr. [REDACTED] report?

23 A. No.

24 Q. So I want to ask you some questions  
10:53 25 about event studies.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           If you had been asked to conduct an  
2 event study that assessed the claim -- I'm  
3 sorry, let me start over.

4           If you had been asked to conduct an  
10:53 5 event study that assessed claims of any link  
6 between Ripple announcements and XRP prices,  
7 would you have been able to do that?

8           MR. FIGEL: Objection.

9           THE WITNESS: It's very hard to answer that  
10:53 10 question. Would I be given a purpose for why  
11 I'm doing it, the context of why I'm doing it?

12           I'm not sure I can answer the question  
13 without an answer to those questions.

14 BY MR. HANAUER:

10:54 15           Q. Well, Dr. [REDACTED], he did an event study  
16 that looked at the impact of Ripple public  
17 announcements and XRP prices, right?

18           MR. FIGEL: Objection.

19           THE WITNESS: Yes, he did that.

10:54 20 BY MR. HANAUER:

21           Q. If you wanted to conduct a similar  
22 event study, could you do that?

23           MR. FIGEL: Objection.

24           THE WITNESS: Again, it's hard to answer that  
10:54 25 question because if you just mean the actual act

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 of conducting an event study, you can conduct an  
2 event study of the relationship between any  
3 event and any price. It has nothing -- there's  
4 nothing unique about cryptocurrencies.

10:55 5 The only issue is whether it's  
6 appropriate to do it, what it shows you, what  
7 you can infer from it. And that's why context  
8 is important.

9 If you asked me to conduct an event  
10:55 10 study between announcements by Kellogg's and the  
11 price of Corn Flakes, you can do that.

12 In other words, an event study is just  
13 a statistical technique to analyze the  
14 relationship between what occurs on particular  
10:55 15 days or events on particular days and price  
16 movements.

17 It might not be valid for any purpose,  
18 it might not tell you anything, but you could  
19 physically conduct that statistical analysis for  
10:56 20 anything.

21 But that's not really meaningful  
22 outside the issue of for what purpose, whether  
23 it's appropriate, and what it tells you. And,  
24 again, that's one of the really fundamental  
10:56 25 flaws, in my opinion, in Dr. [REDACTED] report and

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 why his methodology is so defective.

2 BY MR. HANAUER:

3 Q. Would you be able to conduct an event  
4 study that validly or accurately determined a  
10:56 5 link between Ripple public announcements and XRP  
6 prices?

7 MR. FIGEL: Objection.

8 THE WITNESS: You know, again, it depends for  
9 what purpose and it depends by what you mean by  
10:57 10 "validly."

11 In other words, there are a series of  
12 academic studies that have attempted to use  
13 event studies to analyze whether cryptocurrencies  
14 trade in an efficient market. If that's the  
10:57 15 question that's being analyzed, then, yes, I  
16 could -- if I were interested in analyzing that  
17 question independently from the academic studies  
18 that have analyzed that question, I could an --  
19 I could do that, in the same way that academic  
10:57 20 studies have already done that.

21 That's -- excuse me. That's why the  
22 purpose of conducting an event study has to be  
23 considered anytime you're asking the question of  
24 what you can validly do or not do.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. So I think you said you could conduct  
3 an event study to determine the efficiency of  
4 the market for XRP?

10:58 5 MR. FIGEL: Objection.

6 THE WITNESS: That's right.

7 BY MR. HANAUER:

8 Q. Could you conduct an event study for  
9 another purpose such as accurately determining  
10:58 10 the impact of public announcements on XRP  
11 prices?

12 MR. FIGEL: Objection.

13 THE WITNESS: Well, that gets a lot more  
14 complicated because one of the findings in the  
10:58 15 academic literature is -- one of the purposes of  
16 determining whether it's possible to draw  
17 meaningful conclusions about the relationships  
18 between events and prices is the existence of an  
19 efficient market because the definition of a  
10:59 20 semi-strong efficient market is prices that  
21 reflect publicly-available information quickly  
22 and without bias.

23 And in the absence of a finding of an  
24 efficient market, you don't have a -- those  
10:59 25 criteria are not satisfied or may not be

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 satisfied or one or both may not be satisfied.

2 And that immediately is something that  
3 has to be taken into account at the very least  
4 and may call into question any conclusions that  
10:59 5 are drawn in the absence of an efficient market.

6 But, again, you need to provide a  
7 little more context and definition to answer  
8 beyond that general answer.

9 BY MR. HANAUER:

11:00 10 Q. Did you conduct an event study in this  
11 case?

12 A. No, other than -- not independently,  
13 other than reviewing the academic literature and  
14 reviewing the work by Dr. [REDACTED].

11:00 15 Q. Did anyone at Compass conduct an event  
16 study related to this case?

17 A. Not to the best of my knowledge.

18 Q. Are you offering an opinion in this  
19 case on the informational efficiency of the XRP  
11:00 20 market?

21 MR. FIGEL: Objection.

22 THE WITNESS: Well, I think Dr. [REDACTED], for all  
23 practical purposes, concedes that the XRP market  
24 is not informationally efficient.

11:01 25 And apart from that, a number of the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 academic studies concede the same thing. In  
2 fact, the Joo article that he cites, if I  
3 remember correctly, concludes that the XRP  
4 market is one of the least efficient  
11:01 5 cryptocurrency market, although he doesn't cite  
6 that.

7 BY MR. HANAUER:

8 Q. What article is that?

9 A. The Joo article that he cites.

11:01 10 Q. J-O-O?

11 A. J-O-N, I think it is. Or maybe I'm  
12 getting the name wrong.

13 Yeah, I'm sorry, J-O-O, you're right.

14 Q. Did you do any independent analysis to  
11:01 15 test the efficiency of the XRP market?

16 A. No, other than what I just described of  
17 reviewing the academic literature and looking at  
18 the findings of Dr. [REDACTED].

19 Q. Did anyone at Compass do any  
11:02 20 independent analysis to test the efficiency of  
21 the XRP market?

22 A. Not to the best of my knowledge.

23 Q. As an expert witness, have you ever  
24 performed an event study where you tried to  
11:02 25 assess whether there was a link between a news

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 event and a price reaction, and you concluded  
2 that there was no such link based on the  
3 observation of abnormal reactions in price on  
4 days with no news events?

11:02 5 MR. FIGEL: Objection.

6 THE WITNESS: You know, I've conducted a lot  
7 of event studies in a lot of different contexts.  
8 You know, I just don't know. I don't recall one  
9 way or the other whether that situation has ever  
11:03 10 occurred.

11 BY MR. HANAUER:

12 Q. Can you name any case, as you sit here  
13 today, where you applied such an analysis?

14 MR. FIGEL: Objection.

11:03 15 THE WITNESS: Well, it's reached a particular  
16 conclusion if I understood your -- based on an  
17 assumed set of facts, if I understood your  
18 question correctly.

19 I can't name any event study in the  
11:03 20 hundreds or thousands that I've done where --  
21 because there's so many different permutations  
22 in so many event studies over so many years. I  
23 just can't tell you one way or the other.

24 BY MR. HANAUER:

11:04 25 Q. So I want to ask you about the Joo



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 article, Announcement of Facts in the  
2 Cryptocurrency Markets.

3 A. Okay.

4 Q. You read that article in connection  
11:04 5 with your report?

6 A. Yes, that's correct.

7 Q. Do you dispute any of the findings in  
8 the Joo article?

9 A. Well, again, you have to show me the  
11:04 10 article and show me which finding you're  
11 referring to.

12 Q. As you sit here today, can you name any  
13 findings that you're able to dispute?

14 MR. FIGEL: Objection.

11:04 15 THE WITNESS: As I sit here, I don't remember  
16 all the findings, so I don't know if there's any  
17 that I disagree with without looking at the  
18 findings themselves.

19 BY MR. HANAUER:

11:05 20 Q. Are you aware of any scholarly article  
21 disputing any findings from the Joo article?

22 MR. FIGEL: Objection.

23 THE WITNESS: I'd have to look.

24 BY MR. HANAUER:

11:05 25 Q. As you sit here today?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1       A.    I don't have the articles in front of  
2 me.   As I sit here today, I just don't know one  
3 way or the other.

4       Q.    Do you have any critiques of the design  
11:05 5 of the event studies described in the Joo  
6 article?

7       MR. FIGEL:   Objection.

8       THE WITNESS:   Again, I don't have the article  
9 in front of me so I don't know.

11:05 10                       (Whereupon, Deposition  
11                       Exhibit DF-3 was marked for  
12                       identification.)

13 BY MR. HANAUER:

14       Q.    Is Exhibit DF-3 a copy of the Joo  
11:06 15 article we've just been discussing?

16       A.    It is.

17               What do you want me to look at?

18       Q.    Well, I asked you some questions and  
19 you said you'd need to have the report in front  
11:06 20 of you so --

21       A.    I thought you asked me some questions  
22 about particular aspects of the Joo article.

23       Q.    Okay.   Do you have any critique of the  
24 author's design of the event studies described?

11:08 25       A.    You know, I haven't studied the design

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 of the empirical test in any detail. But just  
2 looking over the article, I don't have any  
3 particular specific criticisms.

4 Q. Did you -- in preparing your report,  
11:08 5 did you consider the Feng article, Informed  
6 Trading in the Bitcoin Market?

7 A. I think I considered it and discussed  
8 it in -- I think it was a footnote in my report  
9 if I remember correctly.

11:09 10 Q. Are you offering an opinion that  
11 disputes any of the findings in that paper?

12 MR. FIGEL: Objection.

13 THE WITNESS: The same answer that I just  
14 gave about this.

11:09 15 First of all -- this Joo article, first  
16 of all, I don't have the article in front of me.

17 Secondly, even if I do have the article  
18 in front of me, I'm not really trying to  
19 duplicate the results and the kinds of things  
11:09 20 you would really need to do to be able to know  
21 if I had any disagreement with any of the  
22 findings or the structure of the empirical  
23 tests.

24 I did think the particular finding that  
11:10 25 I put in the footnote of my report was

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 significant and, again, very similar to the  
2 finding in the Joo report.

3 BY MR. HANAUER:

4 Q. And what finding is that?

11:10 5 A. The finding of inefficiencies in the  
6 market creating arbitrage opportunities because  
7 of the deviations from market efficiency that  
8 exists in other contexts.

9 Q. Did you review the design of the event  
11:10 10 study in the Feng article?

11 MR. FIGEL: Objection.

12 THE WITNESS: You know, as I would say -- I  
13 would say the same thing as I said about the Joo  
14 article. Not in any detail.

11:11 15 I certainly reviewed the article and  
16 the findings and the conclusions. If there was  
17 anything specific, you'd have to show me the  
18 article.

19 But, as I said, even if you showed it  
11:11 20 to me, I couldn't say definitively because that  
21 wasn't really my intention in reviewing the  
22 articles and I didn't try and duplicate the  
23 results to see if I got the same answers as the  
24 authors themselves got.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you try and duplicate the results  
3 of either the Gerritsen article or the Schaub  
4 article cited in Mr. [REDACTED] report?

11:11 5 A. No.

6 Q. So the Gerritsen report, Can Bitcoin  
7 Investors Profit From Predictions by Crypto  
8 Experts, you did not cite that report in  
9 Appendix B to your own report, you did not cite  
11:12 10 that paper.

11 Did you consider the Gerritsen paper in  
12 preparing your report in this case?

13 MR. FIGEL: Objection.

14 THE WITNESS: Yes, I looked at all the  
11:12 15 reports cited by Dr. [REDACTED].

16 BY MR. HANAUER:

17 Q. Before you signed your report?

18 A. That's what I'm just a little bit  
19 confused about in terms of timing. I'm not sure  
11:12 20 if it was before or after.

21 Q. And as you sit here today, are you  
22 offering any opinion disputing any of the  
23 findings in the Gerritsen article?

24 MR. FIGEL: Objection.

11:13 25 THE WITNESS: The exact same answers that I

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 gave about the other two articles.

2 I don't have the article in front of  
3 me, so I don't know which finding you're  
4 referring to. But even if I did have the  
11:13 5 article in front of me, I would give the same  
6 answer, that I didn't really read the article  
7 with the intention of trying to duplicate the  
8 results to see if I agreed with everything that  
9 was done and the results that were reported in  
11:13 10 the article.

11 I was trying to survey the academic  
12 literature to see what it revealed about certain  
13 issues that were discussed in Dr. [REDACTED] report.

14 BY MR. HANAUER:

11:13 15 Q. Would your answer be the same for the  
16 Mark Schaub article cited by Dr. [REDACTED]?

17 A. Yes --

18 MR. FIGEL: Objection.

19 THE WITNESS: Yes, it would.

11:14 20 BY MR. HANAUER:

21 Q. For Dr. [REDACTED] report, did you read the  
22 entirety of it?

23 A. Yes.

24 Q. Are you offering any opinion whether  
11:14 25 Dr. [REDACTED] is qualified to offer the opinions

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 expressed in his report?

2 A. No, I'm not. I'm not offering any  
3 opinion on whether he is or he isn't.

4 Q. Do you have any reason to dispute his  
11:14 5 qualifications?

6 A. No, I don't.

7 Q. Did you review Dr. [REDACTED] work for  
8 errors?

9 MR. FIGEL: Objection.

11:15 10 THE WITNESS: I'm not sure what you mean by  
11 "errors." Like computational errors or -- what  
12 kind of errors are you talking about?

13 BY MR. HANAUER:

14 Q. Did you review his report for  
11:15 15 computational errors?

16 A. No.

17 Q. Did anyone at Compass review Dr. [REDACTED]  
18 work to see if there were computational errors?

19 A. I don't believe so, no.

11:15 20 Q. Did you review the data Dr. [REDACTED] used  
21 to conduct his event study?

22 MR. FIGEL: Objection.

23 THE WITNESS: I mean, I reviewed the report  
24 so I saw the data that Dr. [REDACTED] used in his  
11:15 25 report. That's what I would say.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you review the backup data from  
3 Dr. [REDACTED] report that the SEC produced to  
4 Ripple?

11:16 5 A. Yes. I mean, as I said before, that's  
6 where my Exhibits 1 and 2 came from, his backup  
7 data.

8 Q. And did you review that data?

9 A. Well, again, I'm not sure what you mean  
11:16 10 by "review that data." I reviewed the data in  
11 his backup in order to create Exhibits 1 and 2.

12 Q. Did you or anyone at Compass find any  
13 errors in Dr. [REDACTED] data?

14 MR. FIGEL: Objection.

11:16 15 THE WITNESS: We didn't really look for  
16 errors. I don't know if anybody saw anything  
17 that they thought was an error, if you mean like  
18 a mechanical error or computational error.

19 BY MR. HANAUER:

11:16 20 Q. Did you or anyone working at your  
21 direction attempt to replicate Dr. [REDACTED]  
22 calculations?

23 A. No, as far as I know.

24 Q. And I believe that you testified that  
11:17 25 neither you nor anyone at Compass conducted an



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 event study related to XRP?

2 A. I said that's certainly true of me.  
3 And to the best of my knowledge, it's true of  
4 others as well.

11:17 5 Q. Why didn't you or anyone at Compass try  
6 and conduct an event study, excuse me, related  
7 to XRP?

8 A. Because I thought the use of event  
9 studies by Dr. [REDACTED] in his opinion was  
11:18 10 methodologically flawed for a number of  
11 different reasons in ways that could not be  
12 corrected by performing another event study.

13 Q. Did you or anyone at Compass conduct an  
14 event study related to any other digital assets?

11:18 15 MR. FIGEL: Objection.

16 THE WITNESS: No, to the best of my  
17 knowledge.

18 BY MR. HANAUER:

19 Q. Did you conduct any study to test the  
11:18 20 efficiency of the XRP market?

21 A. I think I've answered that already.

22 I think Dr. [REDACTED], I think in his  
23 report, concedes that the XRP market is not  
24 efficient. And apart from that, there is a  
11:19 25 series of academic articles that conclude the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 same thing.

2 Q. Did you attempt to apply the Cammer  
3 factors to XRP?

4 A. I actually thought about that and I  
11:19 5 thought about the Cammer factors. And, again,  
6 it was obvious that XRP would not meet the  
7 Cammer factors -- would not meet the  
8 requirements for the finding of an efficient  
9 market listed in the Cammer factors.

11:20 10 Q. Did you -- is there any written work or  
11 analysis applying the Cammer factors to XRP?

12 MR. FIGEL: Objection.

13 THE WITNESS: I actually don't know the  
14 answer to that because I specifically raised  
11:20 15 that issue with people that I was working with,  
16 and I didn't really follow up on it because the  
17 answer is obvious.

18 But I don't know whether the people I  
19 was working with actually implemented that  
11:20 20 request in a -- or that idea in a formal way by  
21 creating written work product. I just don't  
22 know.

23 BY MR. HANAUER:

24 Q. Have you reviewed any event studies  
11:21 25 related to XRP other than Dr. [REDACTED]?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1       A.     And other than what's in the academic  
2 articles, no.

3       Q.     Okay.   So what academic articles  
4 performing an event study related to XRP have  
11:21 5 you reviewed?

6       MR. FIGEL:   Objection.

7       THE WITNESS:   Whatever articles that I  
8 reviewed discuss the efficiency of the market in  
9 XRP's by looking, you know, for example, at the  
11:21 10 speed of price adjustment, the existence of  
11 serial correlation, the existence of arbitrage  
12 opportunities.   That's what I would say.

13 BY MR. HANAUER:

14       Q.     And I'm just looking for which articles  
11:22 15 actually discuss that for XRP.

16             So that's in the Joo article, right?

17       A.     Yes, I think that's in a number of the  
18 articles.   But, again, I can't recite that from  
19 memory without looking at all the articles.

11:22 20       Q.     You can't name an article other than  
21 the Joo article that performed an event study  
22 related to XRP?

23       MR. FIGEL:   Objection.

24       THE WITNESS:   I can't name them from memory  
11:22 25 without having the articles in front of me,

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 correct.

2 BY MR. HANAUER:

3 Q. Are you offering an opinion in this  
4 case regarding Dr. [REDACTED] conclusions about the  
11:22 5 link between XRP prices and the prices of other  
6 digital assets?

7 MR. FIGEL: Objection.

8 THE WITNESS: I would say I didn't -- I  
9 certainly saw Dr. [REDACTED] discussion of that  
11:23 10 issue in numerous places, but I did not conduct  
11 any separate analysis of that one way or the  
12 other.

13 BY MR. HANAUER:

14 Q. Are you offering the opinion whether or  
11:23 15 not Ripple's actions or public announcements  
16 cause XRP price movements?

17 A. Well, first of all, you're using the  
18 word "cause." That has a particular meaning in  
19 event study analysis.

11:24 20 You know, what an event study can show  
21 is correlation. I think that's what even -- if  
22 I -- I don't remember exactly Dr. [REDACTED]  
23 phraseology, but that's the right statistical  
24 answer to what an event study shows. And then  
11:24 25 by interpretation you might be able to reach a

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 conclusion about the causation.

2           So I don't really think Dr. [REDACTED] shows  
3 that or even claims that. But I wouldn't rule  
4 out that certain events -- certain announcements  
11:25 5 by XRP resulted in price changes in the sense  
6 that, in the absence of those announcements, the  
7 exact same price changes would not have  
8 occurred.

9           Q. And when you say announcements by XRP,  
11:25 10 do you mean --

11           A. I'm sorry.

12           Q. -- announcements by Ripple?

13           A. I meant announcements by Ripple. Thank  
14 you.

11:25 15           Q. So using the correlation language that  
16 you just referenced, are you opining in this  
17 case whether or not there's a correlation  
18 between Ripple's actions or public announcements  
19 and XRP price movements?

11:26 20           A. Again, it's very hard to answer that  
21 question at the level of generality of your  
22 question.

23           I think Dr. [REDACTED] study is  
24 fundamentally flawed in a variety of different  
11:26 25 ways, but I still would not rule out the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 possibility that there were times when  
2 announcements by Ripple were correlated at some  
3 point in time with price movements by XRP.

4 I think that's a fair interpretation of  
11:26 5 the data.

6 Q. And did you perform any work or  
7 analysis to determine if there was a correlation  
8 between Ripple's actions or public announcements  
9 and XRP price movements?

11:27 10 MR. FIGEL: Objection.

11 THE WITNESS: You know, I guess I would say  
12 some in the sense that as a result of background  
13 and experience, if you pick certain events that  
14 you can anticipate would have a big price  
11:27 15 effects or see the price effects first and then  
16 look backwards towards the events, I believe you  
17 could imagine -- not just imagine, conclude that  
18 there was a correlation between certain  
19 announcements and certain price movements.

11:27 20 But, again, that might be true for my  
21 Kellogg's and Corn Flakes example. Or maybe a  
22 more relevant example would be De Beers  
23 announcements.

24 In other words, for any price movement  
11:28 25 that's related to a product, if you look over a

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 multi-year period, you can find announcements  
2 that are likely going to be correlated with  
3 price movements. And that's really all that  
4 Dr. [REDACTED] did.

11:28 5 BY MR. HANAUER:

6 Q. And I don't want to talk about the  
7 theoretical. I just want to talk about like  
8 what you actually did.

9 And did you perform any analysis to  
11:28 10 actually determine if there is a statistically  
11 significant association between Ripple's actions  
12 or public announcements and XRP's price  
13 movements?

14 MR. FIGEL: Objection.

11:29 15 THE WITNESS: I will say not in a formal  
16 statistical sense. I think we looked at some of  
17 the biggest price movements and the events that  
18 occurred around those price movements or the  
19 announcements that occurred around those price  
11:29 20 movements.

21 And as I said, I think it would be fair  
22 to conclude that there was a correlation between  
23 the biggest price movements and certain  
24 announcements, even to the point of going beyond  
11:29 25 what an event study can tell you itself and

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 conclude for certain isolated price movements.  
2 Those were at a minimum correlated, possibly  
3 even caused by those announcements, but, again,  
4 in ways that you can find throughout the  
11:30 5 different -- all the myriad of different  
6 relationships between products and price  
7 movements.

8 BY MR. HANAUER:

9 Q. How many Ripple announcements did you  
11:30 10 find were correlated with statistically  
11 significant XRP price movements?

12 MR. FIGEL: Objection.

13 THE WITNESS: Well, I didn't quite say that.

14 What I said was, what we did do was  
11:31 15 look at some of the biggest price movements that  
16 Dr. [REDACTED] found and then looked at certain  
17 announcements that occurred around the time of  
18 those price movements and concluded that, you  
19 know, just based on a fair interpretation of the  
11:31 20 data that there would -- there would likely be a  
21 correlation between the announcements and the  
22 price movements, and possibly even a stronger  
23 relationship for that handful of announcements  
24 and that handful of price movements.

25



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. And how many such announcements did you  
3 find?

4 A. I don't remember the exact number. But  
11:31 5 I think we tried to find the biggest price  
6 movements. I'm not sure how we -- exactly how  
7 we defined the biggest price movements but --  
8 what the cutoff was, but some relatively small  
9 number just really to illustrate that if you  
11:32 10 start with 500 announcements over a seven-year  
11 period or whatever it was, you can find a  
12 handful that there are big price movements where  
13 there is a relationship with -- that there  
14 appears to be a relationship with a handful of  
11:32 15 really big price movements and particular  
16 announcements.

17 Q. Do you agree that Dr. [REDACTED] procedures  
18 flagged days with large positive price  
19 reactions?

11:32 20 MR. FIGEL: Objection.

21 THE WITNESS: I'm not sure what you mean by  
22 "flagged days." You can look at price reactions  
23 on every single day if you have the data to do  
24 it. And then you can create a model to tell you  
11:33 25 what a large price movement -- to define what a

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 large price movement is.

2 So I don't know if that's what you mean  
3 by flagging days. But, you know, that's  
4 certainly what you can do with a series of price  
11:33 5 movements.

6 BY MR. HANAUER:

7 Q. Did Dr. [REDACTED] miss any days with large  
8 positive price reactions?

9 MR. FIGEL: Objection.

11:33 10 THE WITNESS: I don't know because I didn't  
11 attempt to replicate his study.

12 BY MR. HANAUER:

13 Q. Do you dispute Dr. [REDACTED] conclusion  
14 that he finds statistically significant evidence  
11:34 15 that XRP prices react to news about Ripple's  
16 actions?

17 A. That's a hard question to answer.  
18 Because I -- I find that the study is so  
19 methodologically flawed for numerous reasons.

11:34 20 But notwithstanding those  
21 methodological flaws, I do not disagree for the  
22 reasons that I just said, that you could  
23 identify certain large price movements that are  
24 associated with -- in terms of correlation,  
11:35 25 possibly even causation, with certain

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 announcements by Ripple. But I don't believe  
2 that supports any of the conclusions that -- or  
3 any of the opinions that Dr. [REDACTED] reached  
4 because his analysis is so methodologically  
11:35 5 flawed.

6 Q. So you discuss confounding news in your  
7 report?

8 A. Among other things, that's right.

9 Q. Did you do any analysis to determine  
11:35 10 whether Dr. [REDACTED] results were actually  
11 confounded by confounding information?

12 MR. FIGEL: Objection.

13 THE WITNESS: You mean other than what I said  
14 in the report? I'm not sure I understand the  
11:35 15 question.

16 BY MR. HANAUER:

17 Q. Well, your report identifies various  
18 events that you claim could be confounding news,  
19 right?

11:36 20 A. Or were confounded, correct.

21 Q. Did you do any testing or analysis to  
22 determine the effect on XRP's price of the  
23 announcements you claim to be confounding news?

24 MR. FIGEL: Objection.

11:36 25 THE WITNESS: Well, sometimes I think there

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 is some qualitative things that you can say, as  
2 I did in the report, and as Dr. [REDACTED] himself  
3 said in his report in terms of certain  
4 concessions that he made.

11:36 5 But a lot of times you can't  
6 disentangle confounding information. And when  
7 that happens -- this is a very well-known  
8 problem in event studies -- you can't draw --  
9 you can't reach conclusions about the -- in this  
11:37 10 case I'll use the word "cause" -- causes of the  
11 price movement.

12 You know, so for an example, in more  
13 conventional event studies, it's frequently the  
14 case that on a particular day you have two  
11:37 15 events that occur, let's say, at the same time  
16 and you don't have a basis for distinguishing  
17 which one was responsible for the price  
18 movement.

19 So in that situation, when that occurs,  
11:37 20 it would be a mistake to conclude that one of  
21 the two confounding events was responsible for a  
22 price movement if you can't distinguish between  
23 them.

24 And there is a similar problem that  
11:38 25 exists with the confounding events in Dr. [REDACTED]

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 event study, although with respect to certain of  
2 the events you can go beyond that and make  
3 qualitative statements, as Dr. [REDACTED] himself does  
4 in his report.

11:38 5 BY MR. HANAUER:

6 Q. Did you make any attempt to, in your  
7 words, disentangle the announcements you  
8 identified as confounding?

9 MR. FIGEL: Objection.

11:38 10 THE WITNESS: Some qualitative effort, yes.  
11 But a lot of times you can't disentangle, that's  
12 the whole point, and that's one of the  
13 criticisms of the inferences that Dr. [REDACTED] draws  
14 to the extent that his event study is meant to  
11:39 15 demonstrate a relationship between Ripple's  
16 actions that reflect Ripple's, I'll use the  
17 word, "entrepreneurial efforts" and other causes  
18 of particular price movements.

19 BY MR. HANAUER:

11:39 20 Q. Did you look at intraday price  
21 movements to see the effect of multiple  
22 announcements on the same day?

23 MR. FIGEL: Objection.

24 THE WITNESS: That's not really the big  
11:39 25 problem with confounding information in

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 Dr. [REDACTED] event study.

2 But as I said, a lot of times you can't  
3 disentangle and that causes you to not be able  
4 to reach conclusions about the causes of price  
11:40 5 movements. But I certainly did make some  
6 qualitative assessments, as Dr. [REDACTED] does  
7 himself.

8 In other words, there is a basic  
9 distinction between creating information and  
11:40 10 reporting information. If you take an example  
11 outside of event studies and, for example, a  
12 newscaster, a newscaster can report an event  
13 which has a big effect -- it could even have a  
14 big effect on prices -- but the newscaster is  
11:41 15 reporting an event that the newscaster didn't  
16 have anything to do with or the newscaster is  
17 just reporting an event that is the product of  
18 actions by others.

19 But if you looked at the price reaction  
11:41 20 to what the newscaster said, sometimes markets  
21 can move based on what the newscaster said, even  
22 though the newscaster had nothing to do with  
23 creating the event.

24 And so if you drew the inference that  
11:41 25 it was the newscaster's efforts that created the

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 price movement, you would be making a  
2 fundamental mistake because you would be  
3 ignoring the difference between creating  
4 information and reporting information.

11:41 5 And so in the case of cryptocurrencies,  
6 for example, in XRP and Dr. [REDACTED] report, when  
7 he uses things like decisions by other platforms  
8 to allow XRP to be traded on a different  
9 platform and calls that a significant event by  
11:42 10 XRP, an XRP announcement that results in a  
11 significant price movement, forgetting any other  
12 problems with that analysis, in many ways that's  
13 like the newscaster example. That's ignoring  
14 the distinction between creating information and  
11:42 15 reporting information.

16 And there are a number of other  
17 illustrations like that in Dr. [REDACTED] list of, I  
18 guess what he calls, "event days" that have  
19 significant price reactions. And that's really  
11:43 20 what I discuss in my report. And actually it's  
21 Dr. [REDACTED] himself acknowledges in his report  
22 because he has one footnote -- I don't remember  
23 exactly what the subject was -- and I'm sure I  
24 could find it -- where he reports significant  
11:43 25 results and I think he has a footnote saying

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 it's not clear whether Ripple had anything to do  
2 with the underlying events which caused the  
3 price movement, even though the announcement was  
4 made by Ripple but the announcement was  
11:43 5 announcing something that was done by others.

6 If you are trying -- if what you are  
7 trying to test for is whether entrepreneurial  
8 efforts by Ripple are correlated with price  
9 movements, then you can't ignore the distinction  
11:44 10 between creating information and reporting  
11 information. And that's a basic confounding  
12 problem that really permeates all of Dr. [REDACTED]  
13 analysis, one of many really fundamental  
14 methodological flaws.

11:44 15 BY MR. HANAUER:

16 Q. Did you look at any intraday price data  
17 on this assignment?

18 MR. FIGEL: Objection.

19 THE WITNESS: I think I said no because  
11:44 20 that's not the principal reason why I'm -- at  
21 least this particular methodological flaw in  
22 Dr. [REDACTED] study occurred.

23 BY MR. HANAUER:

24 Q. And you said you made a variety of  
11:44 25 qualitative assessments about the effect of



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 confounding announcements. Did you perform any  
2 quantitative assessments about the effect of  
3 confounding announcements?

4 MR. FIGEL: Objection.

11:45 5 THE WITNESS: No. But, again, as I said, one  
6 of the problems with confounding announcements  
7 is frequently they can't be disentangled and  
8 that occurs all the time in standard event study  
9 analysis. And when that occurs, it has to be  
11:45 10 recognized as a limitation of what you can infer  
11 from the data. And that's exactly what Dr. [REDACTED]  
12 did not do. That's another, as I said, basic  
13 methodological flaw.

14 BY MR. HANAUER:

11:45 15 Q. Are you offering any opinions about the  
16 appropriateness of how Dr. [REDACTED] decided to  
17 categorize the various types of Ripple news  
18 discussed in his report?

19 MR. FIGEL: Objection.

11:45 20 THE WITNESS: I think to some extent, yes.  
21 It's totally subjective. He picked certain days  
22 to analyze, ignores the vast majority of days.  
23 He also analyzes public events but not negative  
24 events.

11:46 25 I'm not aware of any event study in any

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 academic journal that describes as proper  
2 methodology only analyzing the price reaction to  
3 positive events as opposed to negative events or  
4 positive price reactions as opposed to negative  
11:46 5 price reactions.

6 I'm not saying that none exists. But  
7 it seems so fundamentally inconsistent with  
8 basic statistical analysis and basic event study  
9 methodology. I'm just not aware of any support  
11:47 10 in peer-reviewed journals or anywhere else for  
11 that kind of approach.

12 BY MR. HANAUER:

13 Q. Did Ripple make any public  
14 announcements that categorized XRP in a negative  
11:47 15 light?

16 MR. FIGEL: Objection.

17 THE WITNESS: I don't know whether they did  
18 or they didn't. But it's not only how Ripple  
19 characterized the event; it's what the price  
11:47 20 reaction is to the event.

21 And typically event studies analyzing  
22 the relationship between events and price  
23 movements don't limit themselves to positive  
24 price movements. As I said, that's a departure  
11:47 25 from any recognized event study methodology that

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 I've ever seen --

2 BY MR. HANAUER:

3 Q. Are you --

4 A. -- in any peer-reviewed journals that  
11:48 5 I'm familiar with.

6 Q. Are you offering any opinions regarding  
7 the appropriateness of Dr. [REDACTED] index modeling  
8 in this case?

9 MR. FIGEL: Objection.

11:48 10 THE WITNESS: You know, that's -- he's got  
11 all those 20 different regressions. I haven't  
12 really thought about whether there were any that  
13 could have been added or subtracted. So I guess  
14 no, I don't have any specific criticisms of that  
11:48 15 one issue.

16 BY MR. HANAUER:

17 Q. Can you please look at your report,  
18 paragraph 14.

19 A. Okay, I have it.

11:49 20 Q. And do you see you say [as read]:  
21 Based on my review of the economic evidence?

22 A. Yes, I see that.

23 Q. What do you mean by "economic  
24 evidence"? What are you referring to?

11:49 25 A. The things that are referred to

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 immediately after.

2 Q. Well, what's immediately after are your  
3 conclusions, right?

4 A. About economic evidence.

11:49 5 Q. So when you say "economic evidence," is  
6 that the -- mean the same thing as the facts and  
7 data you reviewed?

8 MR. FIGEL: Objection.

9 THE WITNESS: Well, I mean, if you look at  
11:50 10 the sentence, it says [as read]: Based on my  
11 review of the economic evidence, I have  
12 concluded that Dr. [REDACTED] analysis is  
13 fundamentally flawed for multiple reasons and  
14 provides no support for the SEC's claim that XRP  
11:50 15 is a security.

16 And then it lists the areas that I gave  
17 as reasons based on economic evidence that  
18 Dr. [REDACTED] analysis, in my opinion, is  
19 fundamentally flawed.

11:50 20 BY MR. HANAUER:

21 Q. And the four romanettes in paragraph  
22 14, those are the four general critiques you  
23 have about Dr. [REDACTED] opinions?

24 A. Yes, that's right.

11:50 25 Q. And beyond the reasons cited in

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 paragraph 14, are you offering any other reasons  
2 why you believe Dr. [REDACTED] analysis is  
3 fundamentally flawed?

4 MR. FIGEL: Objection.

11:51 5 THE WITNESS: Well, you know, I think the  
6 report speaks for itself. It's organized I  
7 think consistently with these four areas. So  
8 that's what I would say.

9 BY MR. HANAUER:

11:51 10 Q. I guess, though, is there an area  
11 beyond the four identified in paragraph 14 that  
12 you think makes Dr. [REDACTED] analysis  
13 fundamentally flawed?

14 MR. FIGEL: Objection.

11:51 15 THE WITNESS: Really just what's contained in  
16 my report.

17 BY MR. HANAUER:

18 Q. Can you look at paragraph 16, please.

19 A. Sixteen. Okay.

11:52 20 Q. And referring to the first paragraph --  
21 or the first sentence of paragraph 16, is there  
22 an accepted economics definition of security --  
23 of a security?

24 A. I don't know if I would call it an  
11:52 25 accepted economic definition. But what's stated

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 in the first sentence of paragraph 16 is a  
2 general statement about the economic meaning of  
3 a security.

4 Q. Is there an accepted economics  
11:52 5 definition of an investment contract?

6 A. Again, I'm not sure whether something  
7 is understood as an accepted definition. But at  
8 least my understanding of the common economic  
9 meaning of an investment contract is an  
11:53 10 investment, the success of which varies based on  
11 the success or lack of success or -- of whatever  
12 the firm or venture that the economic actor is  
13 investing in.

14 Q. In this lawsuit does the court decide  
11:53 15 whether Ripple's XRP distributions violated the  
16 federal securities laws using the economics  
17 definition of investment contract or the  
18 definition of investment contract as commonly  
19 used under the federal securities laws?

11:54 20 MR. FIGEL: Objection.

21 THE WITNESS: I don't have an opinion on what  
22 the court should rely on. That's obviously up  
23 to the court.

24 BY MR. HANAUER:

11:54 25 Q. Are you offering the opinion that in

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 order for an investment product to be considered  
2 a security under the federal securities laws the  
3 holder of that investment product must have a  
4 claim on the cash flows or some other asset of  
11:54 5 the investment products issuer?

6 MR. FIGEL: Objection.

7 THE WITNESS: That's a legal opinion. I'm  
8 not offering any legal opinions.

9 BY MR. HANAUER:

11:54 10 Q. So you cite the Supreme Court's  
11 decision in SEC versus W.J. Howey Company?

12 A. That's right.

13 Q. And you refer to the Howey test?

14 A. Correct.

11:55 15 Q. And that's in paragraph seven of your  
16 report?

17 A. That's right.

18 Q. Does Dr. [REDACTED] offer the opinion that  
19 XRP is a security under the Howey test?

11:55 20 MR. FIGEL: Objection.

21 THE WITNESS: Well, you'd have to ask him. I  
22 didn't see that particular opinion phrased that  
23 way in his report.

24 BY MR. HANAUER:

11:55 25 Q. Does Dr. [REDACTED] report offer an opinion

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 whether any aspect of the Howey test is  
2 satisfied?

3 MR. FIGEL: Objection.

4 THE WITNESS: If you mean does he literally  
11:56 5 offer an opinion that says this element is  
6 satisfied or not satisfied, again, you'd have to  
7 ask him. But not that I recall.

8 BY MR. HANAUER:

9 Q. Does Dr. [REDACTED] opine whether any XRP  
11:56 10 transactions constitute the offer of sale of  
11 securities?

12 MR. FIGEL: Objection.

13 THE WITNESS: Same answer.

14 BY MR. HANAUER:

11:56 15 Q. And are you offering an opinion on  
16 whether any of Ripple's XRP transactions  
17 satisfied the Howey test?

18 A. Again, that's a legal opinion. So, no,  
19 I'm not; I'm not offering any legal opinions.

11:56 20 Q. Did you consider yourself an expert on  
21 how courts have applied the Supreme Court's  
22 Howey decision?

23 MR. FIGEL: Objection.

24 THE WITNESS: That's another legal opinion.  
11:56 25 And I'm not offering any legal opinions.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you have -- have courts provided  
3 more recent guidance since Howey on how to  
4 determine if transactions involve the offer or  
11:57 5 sales of securities?

6 MR. FIGEL: Objection.

7 THE WITNESS: That's another legal opinion.  
8 I'm not offering any legal opinions.

9 BY MR. HANAUER:

11:57 10 Q. Did you review any such decisions in  
11 preparing your report?

12 A. No.

13 MR. HANAUER: Let's go off the record.

14 THE VIDEOGRAPHER: This is the end of media  
11:57 15 unit one. We are going off the record. The  
16 time is 11:57 a.m.

17 (Whereupon, a recess was had at  
18 11:57 a.m., after which the  
19 deposition was resumed at  
12:18 20 12:19 p.m. as follows:)

21 THE VIDEOGRAPHER: We are back on the record.  
22 This is the start of media unit two, the  
23 deposition of Daniel Fischel. The time is  
24 12:19 p.m.

12:18 25 You may proceed.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Professor Fischel, before we went on  
3 break, you provided an economics definition of  
4 investment contract.

12:19 5 Do you remember that?

6 A. I think I said I'm not sure there is  
7 such a thing as an accepted definition, but  
8 that's, I think, a general economic  
9 understanding of what an investment contract is.

12:19 10 Q. I actually want to clarify that point.  
11 Whatever definition you gave, does that come  
12 from any academic textbook or scholarly article?

13 A. It very well might as a description. I  
14 didn't search to see if that, I would say,  
12:19 15 general understanding is contained in some type  
16 of finance or business text. I would expect  
17 that it would appear somewhere. But I didn't  
18 check.

19 Q. Can you name one as you sit here today?

12:20 20 A. No, I can't because I didn't  
21 investigate that question.

22 Q. Can I ask you to look at paragraph --  
23 or page 10 of your report, please.

24 A. Sure. Okay.

12:20 25 Q. And do you see a heading A says [as

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 read]: The findings of Dr. [REDACTED] event study  
2 methodology do not demonstrate that XRP holders  
3 profit solely or primarily from the efforts of  
4 Ripple?

12:20 5 A. Yes, I see that.

6 Q. Does Dr. [REDACTED] report offer the  
7 opinion that XRP holders profit solely or  
8 primarily from the efforts of Ripple?

9 MR. FIGEL: Objection.

12:20 10 THE WITNESS: Again, he doesn't use those  
11 words. But in my opinion he reports his results  
12 in a very misleading way because what he does  
13 is, you know, for a series of the announcements  
14 that he subjectively picks, he has a series of  
12:21 15 exhibits where he just shows check marks to show  
16 that there is, in his opinion, a statistical  
17 relationship between the events out of the 500  
18 that he picks and price reactions.

19 But if you look at his backup, and  
12:21 20 that's the purpose of my Exhibit 1, you get a  
21 very different reaction, a very different  
22 understanding of what that relationship is,  
23 meaning that on the overwhelming majority of  
24 days where he says there are events, there is no  
12:22 25 statistically significant price reaction. And

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 on a significant number of days where there is  
2 no events, there is a statistically significant  
3 price reaction. And you would never get that  
4 understanding from his exhibits with checks.

12:22 5 And so I thought the way he reported  
6 his results were very misleading, apart from the  
7 other fundamental methodological flaws that I  
8 discuss in my report, a few of which I referred  
9 to already. And that's really the purpose of  
12:22 10 this section.

11 BY MR. HANAUER:

12 Q. Did you perform any work or analysis to  
13 test whether XRP holders profits solely or  
14 primarily from the efforts of Ripple?

12:23 15 MR. FIGEL: Objection.

16 THE WITNESS: I think Dr. [REDACTED] own results  
17 taken at face value, even apart from the  
18 methodological flaws which exist, demonstrate  
19 that XRP price changes are not, and therefore,  
12:23 20 XRP's holders profits from price changes are not  
21 solely or primarily attributable to Ripple's  
22 efforts.

23 BY MR. HANAUER:

24 Q. I'm not asking what Dr. [REDACTED] did. I'm  
12:23 25 asking what you did.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Did you do any work or analysis to test  
2 whether XRP holders profit solely or primarily  
3 from Ripple's efforts?

4 MR. FIGEL: Objection.

12:23 5 THE WITNESS: As I said, I didn't think it  
6 was necessary to do any tests because Dr. [REDACTED]  
7 own results demonstrate what I just said, which  
8 is also included in this particular section of  
9 my report and in Exhibit 1.

12:24 10 BY MR. HANAUER:

11 Q. Can the SEC satisfy the expectation of  
12 profits prong of the Howey test by establishing  
13 that under the circumstances Ripple promoted XRP  
14 primarily as an investment?

12:24 15 MR. FIGEL: Objection.

16 THE WITNESS: That sounds like a legal  
17 question. I don't have any opinion on that one  
18 way or the other.

19 BY MR. HANAUER:

12:24 20 Q. Are you offering an opinion whether,  
21 under all the circumstances, Ripple ever  
22 promoted XRP primarily as an investment?

23 MR. FIGEL: Objection.

24 THE WITNESS: No, I'm not offering an opinion  
12:24 25 on that.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you consider whether Ripple ever  
3 promoted XRP primarily as an investment?

4 A. No, I didn't. For purposes of the  
12:25 5 analysis in my report, I did not.

6 Q. Are you offering an opinion on whether,  
7 under all the circumstances, Ripple promoted XRP  
8 as a means whereby XRP purchasers could pool  
9 their own activities, their money, and Ripple's  
12:25 10 contribution in a meaningful way?

11 MR. FIGEL: Objection.

12 THE WITNESS: I'm not offering an opinion  
13 about that.

14 BY MR. HANAUER:

12:25 15 Q. Did you consider whether Ripple ever  
16 promoted XRP as a means whereby Ripple  
17 purchasers could pool their own activities,  
18 their money, and Ripple's contributions in a  
19 meaningful way?

12:25 20 MR. FIGEL: Objection.

21 THE WITNESS: No. As with the previous  
22 questions, it's not really. I didn't consider  
23 it and it's not relevant for the purposes of my  
24 analysis.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Well, why is it relevant for you to  
3 consider whether XRP holders profits solely or  
4 primarily from the efforts of Ripple but not  
12:26 5 whether Ripple promoted XRP as an investment?

6 MR. FIGEL: Objection.

7 THE WITNESS: For the reason that I just  
8 said, that Dr. [REDACTED] has exhibit after exhibit  
9 where he reports the existence of relationships  
12:26 10 with check marks. But if you look at his  
11 backup, you get a very different impression of  
12 what's behind those check marks. And it's only  
13 as a result of his subjective choice of dates to  
14 look at and how he interprets price reactions in  
12:27 15 connection with those dates that he can even get  
16 the check marks that he shows.

17 But as I said, even apart from the  
18 methodological flaws, which are pervasive in  
19 Dr. [REDACTED] report, even taken at face value, I  
12:27 20 think it's fair to say that he reports his  
21 results in a very misleading way. And if you  
22 look at his backup, you can see that the  
23 relationships which he purports to find are  
24 actually much weaker and look very different  
12:27 25 than the way that he reports them.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Are you offering an opinion as to  
3 whether XRP purchasers had a reasonable  
4 expectation of profits to be derived from the  
12:27 5 entrepreneurial or managerial efforts of Ripple?

6 A. I'm not offering an opinion about that.

7 Q. Did you consider whether XRP purchasers  
8 had a reasonable expectation of profits to be  
9 derived from the entrepreneurial or managerial  
12:28 10 efforts of Ripple?

11 A. I didn't consider that in connection  
12 with forming any of my opinions because it's not  
13 relevant.

14 Q. Can you look please at page -- or  
12:28 15 paragraph 18 of your report.

16 A. Okay.

17 Q. And I want to refer you to the second  
18 sentence. And you write [as read]: In fact,  
19 taken at face value, Dr. [REDACTED] analysis finds  
12:28 20 that, (i), most days were significantly  
21 positive, XRP returns had no news about Ripple's  
22 efforts; and, (ii), most days with news about  
23 Ripple's efforts did not have significantly  
24 positive XRP returns.

12:28 25 Do you see that?



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A. Yes, I see that.

2 Q. Are you offering the opinion that  
3 either of those metrics identified in the two  
4 romanettes, are you offering the opinion that  
12:29 5 either of those are the determinative metrics  
6 for event studies?

7 MR. FIGEL: Objection.

8 THE WITNESS: I don't understand that  
9 question.

12:29 10 BY MR. HANAUER:

11 Q. Well, have you -- are you offering the  
12 opinion that an event study gauges price  
13 reaction by looking at the days where there is  
14 significant returns but no -- no news  
12:29 15 announcements?

16 MR. FIGEL: Objection.

17 THE WITNESS: I mean, an event study can show  
18 you that. How relevant that is in a particular  
19 case depends on the -- obviously the relevant  
12:29 20 facts and circumstances of the case.

21 BY MR. HANAUER:

22 Q. Have you ever performed an event study  
23 for litigation that based your finding on the  
24 comparison of days with significantly positive  
12:30 25 returns compared to the days without news

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 announcements?

2 MR. FIGEL: Objection.

3 THE WITNESS: Yeah, I think probably the  
4 answer to that would be yes, I think.

12:30 5 BY MR. HANAUER:

6 Q. Can you name one, please?

7 A. I think there was some insider trading  
8 cases that I have been involved in where that  
9 kind of presentation was part of what we did,  
12:30 10 showing basically the relationship between  
11 trading days and events and showing -- and price  
12 movements, and showing that a lot of days when  
13 there were events, there was no trading in  
14 advance of the events. And a lot of the days  
12:31 15 when there were big price movements, there was  
16 no trading or no events, something of that  
17 nature. So I think the answer to your question  
18 would be yes.

19 Q. Can you name one of the those cases, as  
12:31 20 you sit here today?

21 A. For some reason the name Billy Bob  
22 Harris sticks in my mind. I don't know if  
23 that's a real person or I'm just imagining that  
24 name. But I think there was a case involving  
12:31 25 Billy Bob Harris. But I know there were others,

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 too.

2 But as I sit here, I don't remember the  
3 exact names of the cases.

4 Q. Did you ever perform an event study for  
12:32 5 litigation where the determining metric you  
6 looked at was days with events not having  
7 significantly positive returns?

8 MR. FIGEL: Objection.

9 THE WITNESS: What did you say? "The  
12:32 10 determining metric"? You know, other than what  
11 I just said, I can't think of any others, as I  
12 sit here. But, again, I've done so many event  
13 studies and so many different contexts over so  
14 many years, it's very hard to generalize of what  
12:32 15 I did or didn't do that would fit every single  
16 example.

17 BY MR. HANAUER:

18 Q. Can I ask you to look at paragraph 20,  
19 please --

12:33 20 A. Okay.

21 Q. -- of your report.

22 What is the significance of 76.3 to  
23 89.5 percent of days with significantly positive  
24 XRP returns having no news about Ripple's  
12:33 25 efforts?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: It's what I just said. It  
3 demonstrates from Dr. [REDACTED] own backup exactly  
4 what the relationship was between statistically  
12:33 5 significant days with statistically significant  
6 returns and whether or not there was news,  
7 again, taking Dr. [REDACTED] study at face value,  
8 including his subjective analysis of which of  
9 the 500 days should be analyzed, which shouldn't  
12:34 10 be analyzed, which are -- tell you something  
11 that is probative in terms of the hypothesis  
12 that he's testing.

13 But even just taking exactly what he  
14 did at face value and forgetting all the  
12:34 15 methodological criticisms that exist, this is  
16 what his results show, which is very different  
17 from the way he reports his results with checks.

18 MR. HANAUER: One second.

19 (Short pause in proceedings.)

12:34 20 BY MR. HANAUER:

21 Q. In order to determine whether Ripple  
22 news announcements contribute to XRP prices,  
23 should one check the magnitude of the price  
24 reaction on news days?

12:35 25 MR. FIGEL: Objection.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 THE WITNESS: Well, again, your question  
2 presumes that there is a basis for looking at an  
3 inefficient market, a price reaction on days  
4 where there are announcements.

12:35 5 And one of the whole significant  
6 findings of the lack of an efficient market is  
7 there is not really a theoretical or empirical  
8 basis to do that.

9 But putting that fundamental criticism  
12:36 10 to one side, as a matter of statistics, it's  
11 generally accepted that there are well-accepted  
12 methodological techniques to answer questions of  
13 which price movements are large enough or which  
14 returns, to be more precise, are large enough  
12:36 15 that they are unlikely to be attributable to  
16 chance alone.

17 BY MR. HANAUER:

18 Q. Did you perform any analysis in this  
19 case to check the magnitude of price reaction of  
12:36 20 XRP to Ripple announcements?

21 MR. FIGEL: Objection.

22 THE WITNESS: Not other than reviewing  
23 Dr. [REDACTED] analysis and, again, with the  
24 background of the relevant academic literature  
12:37 25 that I've referred to several times.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Is it informative in event studies to  
3 compare price reaction on news days to price  
4 reaction on no news days?

12:37 5 MR. FIGEL: Objection.

6 THE WITNESS: Can be. I mean, I think it's a  
7 function of what it is you're trying to test  
8 under the relevant facts and circumstances at  
9 the time.

12:37 10 BY MR. HANAUER:

11 Q. Did you perform any such analysis in  
12 this case?

13 MR. FIGEL: Objection.

14 THE WITNESS: No, other than looking at the  
12:37 15 results that Dr. [REDACTED] reported.

16 BY MR. HANAUER:

17 Q. Have you performed such analysis before  
18 on other event studies for litigation?

19 MR. FIGEL: Objection.

12:38 20 THE WITNESS: Probably. I mean, comparing  
21 the returns on news days with the returns on  
22 non-news days, yeah. I think so, yes, for the  
23 magnitude of returns, the volatility of returns.  
24 Yes, I'm sure I have.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did you do any work or analysis on this  
3 case to determine whether there was a difference  
4 between significant returns on news days and no  
12:38 5 news days?

6 MR. FIGEL: Objection.

7 THE WITNESS: In terms of the magnitude of  
8 returns, I don't think so, but I'm not a hundred  
9 percent sure.

12:39 10 BY MR. HANAUER:

11 Q. Did you do any work or analysis to  
12 determine how much XRP returns on the news days  
13 contributed to the total XRP returns during the  
14 relevant periods -- relevant period?

12:39 15 A. You know, that's really, I think, the  
16 same question you just asked me.

17 I don't think so in terms of that very  
18 specific comparison, but I'm not a hundred  
19 percent sure.

12:39 20 Q. Did you test the magnitude of abnormal  
21 returns estimated by Dr. [REDACTED] on news days  
22 compared to no news days?

23 THE COURT REPORTER: You said abnormal,  
24 right? Okay.

12:40 25 MR. FIGEL: Objection.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 THE WITNESS: Yeah, as I've said a number of  
2 times, I just analyzed Dr. [REDACTED] backup to look  
3 at what he himself found, as opposed to  
4 performing any completely independent event  
12:40 5 studies.

6 What I'm not sure of is -- in response  
7 to a couple of your questions is whether we took  
8 his results and sliced them and diced them in  
9 the ways that you're suggesting, as opposed to  
12:40 10 the ways that are reported in my Exhibit 1.

11 BY MR. HANAUER:

12 Q. In your words, did you slice and dice  
13 Dr. [REDACTED] results in a way that's not reflected  
14 on Exhibit 1?

12:41 15 A. You know, as I said, I don't think so  
16 in any systematic way, but I'm not a hundred  
17 percent sure.

18 Q. Are you offering the opinion that  
19 Dr. [REDACTED] event study is flawed based on the  
12:41 20 number of no news days with significant returns?

21 A. You know, again, I think, you know,  
22 that presumes, you know, among other things, the  
23 efficiency of the market. And so I'm ignoring  
24 some of the methodological criticisms that I  
12:42 25 believe characterize Dr. [REDACTED] report.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 But in specific answer to your  
2 question, again, that's, if I understand the  
3 question correctly, different from the way I  
4 reported Dr. [REDACTED] backup in Exhibit 1. And so  
12:43 5 I don't believe we did exactly what you just  
6 said, but I'm not sure.

7 BY MR. HANAUER:

8 Q. Are you offering the opinion that  
9 Mr. [REDACTED] event study is flawed based on the  
12:43 10 number of news days without significant returns?

11 A. As I said, I think Dr. [REDACTED] reports his  
12 results in a fundamentally misleading way, and I  
13 think there are other methodological flaws that  
14 undermine his event study.

12:43 15 And that's basically what I said in my  
16 report and that's what I think.

17 Q. So in paragraph 20, the percentages in  
18 romanettes (i) and (ii), does that come from  
19 Exhibit 1 --

12:44 20 A. Yes.

21 Q. -- to your report?

22 A. Yes, it does.

23 Q. And do the metrics in those two  
24 romanettes establish that XRP holders do not  
12:44 25 profit solely or primarily from the efforts of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Ripple?

2 A. I think they are inconsistent with the  
3 claim that XRP holders primarily -- that profit  
4 primarily or solely from the profits of Ripple.

12:44 5 Q. So for Exhibit 1 to your report, can  
6 you remind me who prepared that?

7 A. I'll just adopt all my previous answers  
8 to that question. I'm not sure who actually  
9 physically prepared the exhibit.

12:45 10 The exhibits are taken straight from  
11 Dr. [REDACTED] backup, which we analyzed to try and  
12 get behind the way he reported his results in  
13 his report.

14 Q. So whoever -- whoever it is that  
12:45 15 prepared Exhibit 1 to your report, what did you  
16 do to verify their work?

17 A. Again, we just took the exhibit  
18 directly from Dr. [REDACTED] backup to his report.  
19 It wasn't an independent test that we did. It  
12:45 20 was just reporting what Dr. [REDACTED] himself found  
21 but didn't include in his report.

22 Q. But you didn't prepare Exhibit 1,  
23 right, to your report?

24 A. You mean personally did I create the  
12:46 25 exhibit physically, as opposed to the idea of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 showing that his own backup looks very different  
2 from the way he reported his results in the  
3 report? If that's what you're asking, yes, I  
4 did not physically prepare the exhibit.

12:46 5 Q. So if you didn't prepare the exhibit,  
6 what did you do, if anything, to verify the work  
7 of whoever did prepare Exhibit 1 to your report?

8 A. Because the work, again, is taken  
9 directly from Dr. [REDACTED] backup.

12:46 10 I mean, did I check whether every  
11 number is transcribed correctly? No, I didn't.  
12 I assume we usually have some internal checking  
13 process, so I assume that was done.

14 But this is -- again, these are not a  
12:47 15 matter of any independent analysis that we did  
16 other than looking at what Dr. [REDACTED] found as  
17 revealed in his backup and just moving those  
18 findings from the backup to the exhibit.

19 Q. So referring to the second romanette on  
12:47 20 Exhibit 20 where you cite the 70.5 to  
21 84.8 percent figure, where on Exhibit M do those  
22 numbers come from? Or, I'm sorry, where on  
23 Exhibit 1 to your report do those numbers come  
24 from?

12:47 25 A. Just one second, please.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 All right. If you look at Exhibit 1,  
2 and you look at the first page of Exhibit 1, and  
3 you look at the top two lines going across for  
4 the very last vertical entry, percentage of  
12:48 5 event days with significant returns and without  
6 significant returns, okay, you see the two  
7 numbers, 70.5 percent and 84.8 percent.

8 Q. So column M?

9 A. Column M, which are itself -- just one  
12:49 10 second, please.

11 If you look at the pages behind the  
12 first page and you look at all the entries under  
13 exhibit -- under letter M, if everything is  
14 working correctly, you should find a low number  
12:50 15 of 70.5 and a high number of 84.8.

16 So, let's see. I see the 84.8 and I  
17 see the 70.5.

18 Q. And the 84.8 number, that comes from  
19 the two-sided nonparametric specification of  
12:50 20 model one?

21 A. That's correct.

22 Q. And how did you calculate the numbers  
23 in column M?

24 A. You know, frankly, I can't remember if  
12:51 25 those calculations were by us to sort of -- to

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 take Dr. [REDACTED] numbers and just translate them  
2 to percentages or whether they were in the  
3 backup themselves. I just don't remember.

4 Q. So is the number M the function of  
12:51 5 comparing any two other columns on Exhibit 1?

6 A. You know, again, I would have to check  
7 myself if the -- you know, I just have to check.

8 Q. Okay.

9 A. I'm not sure.

12:53 10 Q. I think I figured it out how to do it,  
11 but I'm going to ask you to verify it for me.  
12 Okay?

13 A. Okay.

14 MR. HANAUER: Would you mind passing this  
12:53 15 down.

16 THE WITNESS: Yeah, I'm not going to use your  
17 little calculator or computer or whatever this  
18 is. I mean, you can represent whatever numbers  
19 you want to me based on your usage of this  
12:53 20 instrument. And if I can agree, I will, or if I  
21 can't agree, I'll say I need to independently  
22 verify it.

23 BY MR. HANAUER:

24 Q. So if I ask you to type something into  
12:53 25 a calculator, you won't do that?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1       A.    I will do it, I'm just not going to do  
2 anything more than type the numbers into the  
3 calculator.

4       Q.    Okay. And I won't ask you to. Okay?

12:53 5       A.    Okay.

6       Q.    So I think that the way you got to  
7 column M is to divide column F by column D.

8            Can you try doing that for model 1,  
9 two-sided nonparametric?

12:54 10       A.    Yeah, you know, for --

11       MR. FIGEL: I object to this.

12            Mr. Hanauer, you obviously have a  
13 calculator. You could have done it before this.  
14 You can represent to him what the arithmetic is.

12:54 15       I don't think it's an appropriate use of  
16 deposition time to have him go through a  
17 rhetorical exercise of using a calculator.

18       THE WITNESS: Well, you know, for whatever  
19 it's worth, I do think that is what it is. I  
12:54 20       was just looking at the -- eyeballing the data.

21            But I can't perform the calculation in  
22 my head, and I don't want to use your  
23 calculator. But that is the way it looks to  
24 me.

12:55 25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 (Whereupon, Deposition

2 Exhibit DF-19 was marked for

3 identification.)

4 MR. FIGEL: As I suspected, you've already

12:55 5 done the math, so we'll take your

6 representations about the arithmetic.

7 MR. HANAUER: I've been told you may not want

8 the witness using a calculator.

9 BY MR. HANAUER:

12:55 10 Q. So, again, if I'm trying to figure out

11 how you arrived at column M, is it safe to say

12 that you divided, at least for the two-sided

13 nonparametric portion of model 1, did you divide

14 column F by column D?

12:56 15 A. You know, as I said, I think so. I

16 mean, that's what I thought so before you gave

17 me this sheet. I didn't perform these

18 calculations so it looks right to me. But, you

19 know, obviously, I want to have a chance to

12:56 20 check it myself.

21 Q. And that's why I put a calculator in

22 front of you.

23 A. Yeah, but I don't want to use your

24 calculator and I don't want to do these

12:56 25 calculations on the fly.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           That's the way it looks to me. I'm  
2 willing to say that much. That's what I think.

3           But to be a hundred percent sure, I'd  
4 want to check myself.

12:56 5           Q.    Okay. Well, maybe if we're -- when we  
6 have a break and you can use whatever instrument  
7 you feel is appropriate, if you think my math is  
8 wrong, please let me know.

9           MR. FIGEL: I have a proposal, Mr. Hanauer.  
12:56 10 We'll take your representation that you've done  
11 the math correctly. I will do a parallel check.  
12 If I see something, I will bring that to your  
13 attention.

14           I just don't think it's fair to ask the  
12:57 15 witness to use an unfamiliar calculator and do  
16 mathematical calculations on the record.

17           MR. HANAUER: Okay.

18           THE WITNESS: And just to be clear, I'm not  
19 suggesting that I think your math is wrong. I  
12:57 20 didn't say that.

21 BY MR. HANAUER:

22           Q.    Well, there's a good chance it could  
23 be, but that's neither here nor there.

24           So column M, it looks like that  
12:57 25 calculates the frequency of event days without



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 significant returns among all event days.

2 Is that accurate?

3 A. That's the way it looks.

4 Q. And are you offering the opinion

12:57 5 that --

6 A. Actually, can you just hold on for one  
7 second. There may be a simpler answer to this.

8 And I apologize for not thinking of  
9 this right away. If you look at the last page  
12:58 10 of Exhibit 1, there is a legend that tells you  
11 how every column is calculated.

12 And column M is column F divided by  
13 column D.

14 Q. There we go.

12:58 15 So having that --

16 A. It's on -- in other words, it's on the  
17 exhibit.

18 Q. Exhibit 1 to your report?

19 A. Correct.

12:58 20 Q. So on Exhibit 1 to your report, does  
21 column M calculate the frequency of event days  
22 without significant returns among all event  
23 days?

24 A. I mean, column M calculates whatever is  
12:58 25 that's reflected on column M, which is what's

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 stated.

2 Q. So that would be significant -- the  
3 frequency of significant returns, that's column  
4 F, right? I'm sorry.

12:59 5 So column F is event days without  
6 significant returns?

7 A. That's right.

8 Q. And column D is event days total?

9 MR. FIGEL: Objection.

12:59 10 THE WITNESS: Again, this is -- just to be  
11 clear, this is Dr. [REDACTED] backup. It's not our  
12 calculation. This is reporting what he found --  
13 what he did based on his determination as to  
14 what days counted and what days didn't count and  
01:00 15 how you separate the days in different  
16 categories in his subjective opinion.

17 But column D is -- again, the number of  
18 the event days varies depending on which  
19 specification you're looking at. Because for  
01:00 20 some specifications, there were more trading  
21 days -- or more days and therefore more event  
22 days than others. He discusses that in his  
23 report.

24 But with respect to the first  
01:00 25 regression specification on page 2 of 6, there

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 are 105 -- according to Dr. [REDACTED], 105 total  
2 event days; 16 of them have significant returns,  
3 according to Dr. [REDACTED]; 89 of them do not have  
4 significant returns.

01:01 5 Again, I'm just going to say, again,  
6 this is accepting Dr. [REDACTED] conclusions and  
7 analysis at face value and ignoring the  
8 methodological flaws that exist. But these are  
9 his reports -- these are his results, rather, as  
01:01 10 reported in his backup.

11 BY MR. HANAUER:

12 Q. Have you ever prepared an event study  
13 as a testifying expert that relies on the metric  
14 frequency of event days without significant  
01:01 15 returns among all -- among all event days that  
16 relies on that metric to establish or disprove  
17 the relationship between public announcements  
18 and the price of a security?

19 A. Well, that was sort of a compound  
01:02 20 question.

21 The closest thing that I can think of  
22 is what I've said we've done in a number of  
23 different insider trading cases, which I do  
24 recall, of looking at some total set of days  
01:02 25 that were at issue in the case and looking at

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 the days when there were price movements or were  
2 not price movements and were trades -- was  
3 trading around those days, there was not trading  
4 around those days, and the various comparisons  
01:02 5 that you get performing that analysis.

6 Q. And that was -- and if I were to ask  
7 you to name a case --

8 A. The only name that came to me was Billy  
9 Bob Harris. But I do think there are other  
01:03 10 cases as well.

11 Q. Are you aware of any academic or  
12 scholarly literature that supports using that  
13 metric to support an event study?

14 MR. FIGEL: Objection.

01:03 15 THE WITNESS: I don't know what you mean,  
16 "support an event study." These are the --  
17 these are Dr. [REDACTED] results of his event study.  
18 They neither support or don't support. It's  
19 just what the event study shows, according to  
01:03 20 Dr. [REDACTED].

21 BY MR. HANAUER:

22 Q. Are you aware of any academic or  
23 scholarly literature that supports using that  
24 metric as a way to criticize an event -- the  
01:03 25 results of an event study?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1       A. I'm not criticizing the results of an  
2 event study. The results are what the results  
3 are.

4               Again, putting aside the methodological  
01:03 5 criticisms that I have, these are the results  
6 that are reported. What I have said is the way  
7 that Dr. [REDACTED] reported these results, his own  
8 results, with just checks and not showing how  
9 weak the relationships are even if under his  
01:04 10 test choosing the days that he wants to look at,  
11 ignoring the vast majority of days, you know,  
12 defining his own test of statistical  
13 significance, these are just all his results  
14 just taken at face value.

01:04 15               And I do think both because of the  
16 subjectivity, the fact that there was an  
17 inefficient market, the fact that he's only  
18 looking at one-sided events, he's not looking at  
19 negative events, as well as some other  
01:05 20 methodological criticisms that are even more  
21 fundamental, for the most part, I'm ignoring all  
22 of those right now.

23               I'm just looking at, this is what he  
24 found. But he didn't report this is what he  
01:05 25 found. What he reported was a series of check

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 marks. And I think the check marks are  
2 misleading in light of the actual results of the  
3 event studies that he himself performed.

4 Q. Let me ask you about column L on  
01:05 5 Exhibit 1 to your report.

6 A. Okay.

7 Q. And that represents the frequency of  
8 event days that had significant returns?

9 A. That's right.

01:05 10 Q. And it looks like -- does Exhibit 1  
11 have -- contain the data you would need to  
12 calculate the frequency of nonevent days with  
13 significant returns?

14 MR. FIGEL: Objection.

01:06 15 THE WITNESS: Well, if you look at columns G,  
16 H, and I, if I understand the question  
17 correctly, they deal with the number of nonevent  
18 days and the number of significant returns and  
19 the number of nonsignificant returns, according  
01:06 20 to Dr. [REDACTED] in his own event study in all these  
21 -- in all these different specifications.

22 BY MR. HANAUER:

23 Q. So if I wanted to find the frequency of  
24 nonevent days with significant returns using  
01:07 25 Dr. [REDACTED] data, would I divide column H by

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 column G?

2 A. The number of nonevent days with  
3 significant returns, that's the question? Yes,  
4 I think that's what you would do.

01:07 5 Q. So I'd like to refer you to model 1,  
6 two-sided nonparametric specification.

7 A. Okay.

8 Q. So if I wanted to divide H by G for  
9 that model, would it be 104 divided by 2,264?

01:08 10 A. I believe so, yes, that's what it would  
11 be.

12 Q. And if we look at exhibit -- my Exhibit  
13 DF-19, it says 104 divided by 2,264 equals  
14 4.6 percent?

01:08 15 A. That's what it looks like.

16 Q. Do you have any reason to doubt that  
17 calculation?

18 A. No, I don't.

19 Q. Are you familiar with the concept of  
01:08 20 false positives in statistical tests?

21 A. Yes.

22 Q. What is the typical expectation for  
23 false positives in a statistical test?

24 MR. FIGEL: Objection.

01:08 25 THE WITNESS: At the level of generality of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 your question, I'm not sure there is an  
2 expectation.

3 BY MR. HANAUER:

4 Q. Isn't the level of -- you would  
01:09 5 typically expect false positives in statistical  
6 tests between five and ten percent?

7 A. Those are conventional levels of  
8 statistical significance.

9 In event studies, I'm not sure they  
01:09 10 would apply always, no matter what the test was.  
11 But generally you would expect to find,  
12 depending if you had a one-tailed test or a  
13 two-tailed test, a price reaction that's  
14 statistically significant randomly, even if not  
01:09 15 attributable to, not correlated with or caused  
16 by a particular event. Solely by chance, in  
17 other words.

18 Q. So if we think about that 4.6 percent  
19 number of the nonevent days with significant  
01:10 20 returns, is it possible that some of those  
21 significant nonevent observations with  
22 significant returns could be false positives?

23 MR. FIGEL: Objection.

24 THE WITNESS: I'm not sure I'd call them  
01:10 25 false positives. I mean, they are what they



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 are.

2 MR. HANAUER: Now a good time for a break?

3 MR. FIGEL: Sure.

4 THE VIDEOGRAPHER: We are going off the  
01:10 5 record. The time is 1:11 p.m.

6 (Whereupon, a recess was had at  
7 1:11 p.m., after which the  
8 deposition was resumed at  
9 2:22 p.m. as follows:)

02:21 10 THE VIDEOGRAPHER: We are back on the record.  
11 The time is 2:22 p.m.

12 You may proceed.

13 BY MR. HANAUER:

14 Q. Professor Fischel, could I ask you to  
02:21 15 please look at page 18 of your report.

16 And do you see a heading D in between  
17 paragraphs 30 and 31?

18 A. Yes, I do.

19 Q. Does Dr. [REDACTED] report offer the  
02:22 20 opinion that XRP holders are engaged in a common  
21 enterprise with Ripple?

22 A. He doesn't say those words, as far as I  
23 can recall.

24 Q. Did you perform any work or analysis to  
02:22 25 determine whether or not XRP holders are engaged

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 in a common enterprise with Ripple?

2 A. Well, I would say one of my  
3 methodological criticisms of Dr. [REDACTED] is his  
4 entire event study proves nothing about any of  
02:23 5 the competing claims in this case. Not only it  
6 doesn't prove anything, it doesn't shed any  
7 light on any of the competing claims in this  
8 case.

9 And to the extent that one of the  
02:23 10 claims in this case related to whether or not  
11 XRP is a security, which is clearly a legal  
12 question, according to what Dr. [REDACTED] has done,  
13 his whole approach, even the way he sets up his  
14 hypothesis that he's testing in paragraph 30,  
02:24 15 has nothing to do with anything in terms of the  
16 disputed issues in the case.

17 And so that's a really basic criticism,  
18 but it's really a basic methodological  
19 criticism. In other words, if you wanted to  
02:24 20 show that this event study that Dr. [REDACTED] did  
21 sheds some light on any of the issues in the  
22 case, you would want to say that these results  
23 that he finds, apart from some of the other  
24 methodological criticisms, show something of  
02:25 25 consequence in terms of the relationship between

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 XRP and Ripple that does not exist in multiple  
2 other contexts.

3           So just to give one example, if you --  
4 I think I mentioned this earlier. If you took  
02:25 5 De Beers and you took seven years of price --  
6 seven years of announcements and seven years of  
7 analysis of the prices of diamonds, I haven't  
8 done the analysis, but I have no doubt that if  
9 you took hundreds of announcements over seven  
02:26 10 years, you would find some announcements that  
11 had a price effect on diamonds.

12           And that would be true about oil. I  
13 even mentioned earlier about a less direct  
14 example, but, nevertheless, the same point about  
02:26 15 a food -- a food manufacturer like Kellogg's and  
16 a product like, you know, the price of Corn  
17 Flakes.

18           And so to the extent that the event  
19 study doesn't have any claim -- doesn't have any  
02:26 20 relationship, doesn't even purport to have any  
21 relationship to any of the issues that are  
22 relevant in an economic or legal sense to what's  
23 disputed in the case, including the issue of  
24 whether Ripple and XRP are in a common  
02:27 25 enterprise, I think that's a really major

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 methodological flaw.

2 Q. Okay. And I understand that your --  
3 you disagree with Dr. [REDACTED] conclusion -- well,  
4 you disagree with a contention that there's a  
02:27 5 common enterprise, right?

6 MR. FIGEL: Objection.

7 THE WITNESS: Well, common enterprise is, in  
8 part, a legal term. But, you know, whatever it  
9 means as a matter of economics, Dr. [REDACTED] does  
02:27 10 not show that the relationship between Ripple  
11 and XRP is any different than the relationship  
12 between De Beers and diamonds or oil companies  
13 and oil or food manufacturers and food prices,  
14 and doesn't even purport to.

02:28 15 He never even states what he's testing  
16 in ways that distinguish the relationship  
17 between De Beers -- excuse me, the relationship  
18 between Ripple and XRP from all of these other  
19 examples.

02:28 20 You know what, when I looked at  
21 paragraph 30 of his report -- and I remember the  
22 number -- I think all you have to do is look at  
23 that paragraph and realize that the entire  
24 exercise that Dr. [REDACTED] is conducting is really  
02:28 25 fundamentally flawed from a methodological point

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 of view.

2 Because, for example, he doesn't have  
3 any control group. If you wanted to do this in  
4 some kind of an academic way, you would want to  
02:28 5 try and show that the relationship -- forgetting  
6 all the subjectivity and the lack of efficient  
7 markets, you'd want to show that the  
8 relationship between Ripple and XRP, for  
9 example, is different than the relationship  
02:29 10 between other cryptocurrencies, between their  
11 founders' companies and price movements.

12 You'd want to show that it's different  
13 from commodities, such as diamonds.

14 BY MR. HANAUER:

02:29 15 Q. And excuse me, Professor, I think  
16 you're steering a little from my question, so if  
17 you don't mind, I'm going to try and rephrase.

18 MR. FIGEL: Objection. I'd like the witness  
19 to be able to finish his answer. You  
02:29 20 interrupted him.

21 MR. HANAUER: Well, I move to strike his  
22 answer as nonresponsive.

23 MR. FIGEL: Well, I'd like to have him finish  
24 it and then you can make whatever motion you'd  
02:29 25 like.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 BY MR. HANAUER:

2 Q. Is there anything else you'd like to  
3 add to the question of: You disagree with the  
4 contention that there's a common enterprise?

02:29 5 A. I think for the reasons that I just  
6 stated, and the lack of a control group, a lack  
7 of a comparison.

8 Again, that's just a basic and  
9 fundamental methodological flaw because it sheds  
02:30 10 no light on this relationship, has any different  
11 characteristics than an infinite number of other  
12 relationships that have nothing to do with  
13 securities or cryptocurrency.

14 And so in terms of what it has to do  
02:30 15 with common enterprise, to the extent that  
16 there's some intended relationship between what  
17 Dr. [REDACTED] has done and the -- to shed any light  
18 on the relevant issues that need to be decided  
19 in this case, including the issue of common  
02:30 20 enterprise, he hasn't done that. He doesn't  
21 purport to do that.

22 And, again, that just fails all basic  
23 recognized standards for proper methodological  
24 approaches. And that's a fundamental defect.

02:31 25 Q. So I understand that you disagree with

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Dr. [REDACTED] methodology.

2 What I'm asking you, though, is: Did  
3 you perform any affirmative work or testing or  
4 analysis to try and test whether XRP holders are  
02:31 5 engaged in a common enterprise with Ripple?

6 MR. FIGEL: Objection.

7 THE WITNESS: You know, as I've indicated  
8 multiple times, my report is a rebuttal report  
9 to Dr. [REDACTED].

02:31 10 The conclusion that I've reached is for  
11 reasons that I've just stated and other reasons  
12 that I've previously stated or are contained in  
13 my reports, I don't believe that Dr. [REDACTED]  
14 entire analysis, because it is so methodologically  
02:32 15 flawed and violates all standards of appropriate  
16 methodology and peer-tested -- and peer-reviewed  
17 journals, sheds any light on the question of  
18 whether or not the relationship between Ripple  
19 and XRP is one that you could call a common  
02:32 20 enterprise.

21 BY MR. HANAUER:

22 Q. But did you do any testing on your own  
23 to answer that question?

24 MR. FIGEL: Objection, asked and answered two  
02:32 25 or three times now.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: Yeah, I don't have anything to  
2 add. The analysis that I did on my own was my  
3 analysis and critique of Dr. [REDACTED]. That's what  
4 I did.

02:32 5 BY MR. HANAUER:

6 Q. Is there an accepted economics  
7 definition of common enterprise?

8 A. Again, you've asked me this question in  
9 connection with other terms. I don't know if  
02:32 10 I'd say there's an accepted definition. There's  
11 frequently an understanding of what a common  
12 enterprise is.

13 Q. In the economics literature?

14 A. As a matter of economics.

02:33 15 Q. So if I wanted to test, from an  
16 economic perspective, whether a common  
17 enterprise exists or not, what would I do?

18 MR. FIGEL: Objection.

19 THE WITNESS: Well, it depends a little bit  
02:33 20 on the context. But one thing you would want to  
21 do is you'd want to see if the relationship  
22 between the parties creates some commonality in  
23 terms of what's good news for one is good news  
24 for the other and what's bad news for one is bad  
02:33 25 news for the other.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           Again, I don't know if I'd call that an  
2           accepted definition, but that's a usual economic  
3           understanding of the term common enterprise.

4           BY MR. HANAUER:

02:34 5           Q.     And are you offering the opinion that  
6           XRP holders are not engaged in the common  
7           enterprise with Ripple?

8           MR. FIGEL:   Objection.

9           THE WITNESS:   The opinions that I'm offering  
02:34 10          are exactly what I've said and what's contained  
11          in my report.

12          BY MR. HANAUER:

13          Q.     I'm asking a yes or no question.

14          MR. FIGEL:   Objection.

02:34 15          THE WITNESS:   You know, you told me -- you  
16          cut me off before, so I don't want to repeat  
17          what I just said.   But if you want me to repeat  
18          it again, I will.

19                  I'm offering the opinion that the  
02:34 20          analysis that Dr. [REDACTED] has performed is  
21          fundamentally flawed, violates various basic  
22          requirements of standard methodology established  
23          in peer-reviewed journal after peer-reviewed  
24          journal.

02:34 25                  And for all those reasons, including

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 ones that I've stated in my previous answers and  
2 the ones contained in my report, I believe his  
3 report sheds no light whatsoever on the issue of  
4 whether or not Ripple and XRP are engaged in a  
02:35 5 common enterprise, however common enterprise is  
6 defined.

7 BY MR. HANAUER:

8 Q. So the question you just identified  
9 "engaged in a common enterprise," why is that  
02:35 10 question even relevant to this case?

11 MR. FIGEL: Objection.

12 THE WITNESS: Well, whether it's legally  
13 relevant or not is a question for the court to  
14 decide, not for me to decide.

02:35 15 I mean, I think those words are used in  
16 the Howey test itself, you know. But, you know,  
17 again, I'm not offering any legal opinions.

18 The basic opinion I'm offering is that  
19 if you look at the test that Dr. [REDACTED] claims he  
02:35 20 is performing, look at paragraph 30 -- I'm happy  
21 to read it into the record if you want me to  
22 read it into the record -- it's a generic  
23 question that has nothing to do with the  
24 relationship between Ripple and XRP in a way  
02:36 25 that's any different from the relation of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 countless other firms and products of firms or  
2 investments in firms, however you want to phrase  
3 it.

4 BY MR. HANAUER:

02:36 5 Q. So you cite to Howey. Does Howey use  
6 the terms "engaged in a common enterprise"?

7 MR. FIGEL: Objection.

8 THE WITNESS: Well, you know that better than  
9 I do. But let's see what -- I quoted it, so I  
02:36 10 don't want to paraphrase it.

11 BY MR. HANAUER:

12 Q. I want to make sure we're right on the  
13 terminology here.

14 A. The words "common enterprise" appear in  
02:37 15 paragraph seven.

16 Q. I asked you engaged in a common  
17 enterprise. Is that language anywhere in Howey?

18 MR. FIGEL: Objection.

19 THE WITNESS: I don't see those exact words  
02:37 20 in Howey.

21 BY MR. HANAUER:

22 Q. And, in fact, Howey --

23 A. At least not in this quote that I have.

24 Q. And, instead, Howey uses the words  
02:37 25 "invests money in a common enterprise," correct?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 A. That's what it says.

2 Q. Are you offering an opinion whether or  
3 not XRP purchasers invested money in a common  
4 enterprise?

02:37 5 A. Well, I think if you're asking whether  
6 I'm expressing an opinion whether holders of XRP  
7 invested in Ripple, you know, there is certainly  
8 not a one-for-one correlation there.

9 Q. That wasn't my question.

02:38 10 Are you offering an opinion whether or  
11 not holders of XRP invested money in a common  
12 enterprise?

13 A. Your question doesn't really make any  
14 sense. Ripple is the common -- I don't  
02:38 15 understand. What is your definition of what the  
16 common enterprise is in your definition -- in  
17 your question?

18 Q. Unfortunately, I'm the one that asks  
19 the questions.

02:38 20 A. Then I don't understand the question.

21 Q. What I'm trying to determine is why are  
22 you using the term "engaged in a common  
23 enterprise" when the test is "invested money in  
24 a common enterprise"?

02:38 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: You know, as I said, I'm not  
2 offering any legal opinions. The judge can  
3 decide if what I said about a criticism -- a  
4 fundamental criticism in Dr. [REDACTED] methodology  
02:39 5 because he doesn't distinguish -- among the  
6 other fundamental methodological criticisms  
7 because he doesn't distinguish in any way the  
8 relationship between Ripple and XRP from the  
9 relationship between De Beers and diamonds, oil  
02:39 10 companies and oil, and countless other examples,  
11 and he doesn't even claim to.

12 And if you look at his paragraph 30,  
13 it's generic. It applies to every single one of  
14 the examples that I just mentioned. The judge  
02:39 15 can decide if that's a valid criticism or not a  
16 valid criticism, but that's my opinion.

17 BY MR. HANAUER:

18 Q. Did Ripple pool the money it received  
19 from selling XRP to different purchasers?

02:39 20 MR. FIGEL: Objection.

21 THE WITNESS: I don't know. I don't have an  
22 opinion on that one way or the other.

23 BY MR. HANAUER:

24 Q. Did Ripple deposit the funds it  
02:40 25 received from selling XRP into a single bank

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 account?

2 MR. FIGEL: Objection.

3 THE WITNESS: I don't know. I have no  
4 opinion on that one way or the other.

02:40 5 BY MR. HANAUER:

6 Q. Did Ripple separately manage the funds  
7 it received from different XRP purchasers?

8 MR. FIGEL: Objection.

9 THE WITNESS: I don't know. I have no  
02:40 10 opinion on that one way or the other.

11 BY MR. HANAUER:

12 Q. Did Ripple use the money it received  
13 from selling XRP to fund its operations?

14 MR. FIGEL: Objection.

02:40 15 THE WITNESS: You know, at one point I think  
16 I've seen some data on that, on the sources of  
17 funds that Ripple had. You know, I guess all I  
18 can say is I've seen some funds -- I've seen  
19 some data on that, but I haven't really  
02:40 20 conducted any study of it.

21 BY MR. HANAUER:

22 Q. Did Ripple use the money it received  
23 from selling XRP to fund the construction of the  
24 Ripple ecosystem?

02:41 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: It really would be the same  
2 answer. I think I've seen some data on that,  
3 but I haven't really studied that question.

4 BY MR. HANAUER:

02:41 5 Q. Did Ripple endeavor to increase the  
6 range of goods and services that holders of XRP  
7 would find beneficial to buy and sell using XRP?

8 MR. FIGEL: Objection.

9 THE WITNESS: Same answer.

02:41 10 BY MR. HANAUER:

11 Q. Did the success of the digital asset  
12 ecosystem that Ripple built drive demand for  
13 XRP?

14 MR. FIGEL: Objection.

02:41 15 THE WITNESS: The phrase "drive demand" is  
16 too vague, so I'm not sure how to answer the  
17 question.

18 BY MR. HANAUER:

19 Q. Well, if Ripple creates a product that  
02:42 20 uses XRP to make the product work, is Ripple  
21 driving demand for XRP by increasing the use of  
22 that product?

23 MR. FIGEL: Objection.

24 THE WITNESS: You know, I guess you could say  
02:42 25 that. But that's exactly the same generic point

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 that doesn't distinguish the relationship  
2 between Ripple and XRP from countless other  
3 relationships that have nothing to do with  
4 securities or allegations about securities.

02:42 5 It's just -- presumably when a firm creates a  
6 product, it's frequently the case or typically  
7 the case that by creating the product the firm  
8 is taking steps to increase the demand for the  
9 product. So by definition -- because if the  
02:43 10 product didn't exist, there wouldn't be demand  
11 for it.

12 But that's exactly the criticism I'm  
13 making of Professor Metz. He has this  
14 completely generic test that has nothing to do  
02:43 15 with anything that distinguishes this  
16 relationship from countless other relationships,  
17 and he doesn't even claim that it does.

18 And your question is, you know, subject  
19 to exactly the same response, that, yes, Ripple,  
02:43 20 by creating XRP increases the demand for XRP by  
21 definition because XRP didn't otherwise exist.  
22 And that's true for every single -- maybe  
23 overstating slightly -- but as a general matter,  
24 that is true for every single creator of a  
02:43 25 product where the success of the product is



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 based in some way on market acceptance of the  
2 product.

3 BY MR. HANAUER:

4 Q. Are you offering any opinion on what  
02:44 5 drove demand for XRP?

6 MR. FIGEL: Objection.

7 THE WITNESS: Not a separate opinion. But I  
8 discuss a lot of different examples of different  
9 ways, I guess you could say, in which demand for  
02:44 10 XRP existed.

11 BY MR. HANAUER:

12 Q. Does Dr. [REDACTED] report offer the  
13 opinion that an event study can establish  
14 whether or not offers or sales of securities  
02:44 15 took place?

16 MR. FIGEL: Objection.

17 THE WITNESS: Again, I don't think he uses  
18 those words. But as I've tried to indicate,  
19 presumably, he didn't go to all this effort to  
02:45 20 conduct a study that has no relationship to the  
21 issues in the case. And one of my fundamental  
22 criticisms is exactly that; that his study in no  
23 way distinguishes the relationship between  
24 Ripple and XRP from countless other  
02:45 25 relationships that have nothing to do with the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 facts and circumstances of this case, let alone  
2 have nothing to do with the issue whether  
3 something is a security.

4 BY MR. HANAUER:

02:45 5 Q. And I guess you used the example of an  
6 oil company, right?

7 A. As one example, that's right.

8 Q. Does any oil company own the majority  
9 of all the oil in existence?

02:45 10 MR. FIGEL: Objection.

11 THE WITNESS: Not that I know of.

12 BY MR. HANAUER:

13 Q. Did any oil company or its founders  
14 create oil?

02:46 15 A. You mean discover oil or you mean  
16 chemically create? I'm not sure exactly what  
17 you mean.

18 Q. The latter.

19 A. Did they chemically create oil? Not to  
02:46 20 the best of my knowledge, but I don't really  
21 know for certain.

22 Q. Does oil have use independent of  
23 trading or speculation?

24 A. Trading or speculation? Yes, it does.

02:46 25 Q. Are you offering an opinion in this

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 case whether uses of XRP exist other than for  
2 trading or speculation?

3 MR. FIGEL: Objection.

4 THE WITNESS: I'm not -- you know, I assume  
02:46 5 you're not suggesting any of these questions  
6 have anything to do with Dr. [REDACTED] study. I  
7 mean, that's what I'm responding to. So I just  
8 want to make sure the context of my answers is  
9 clear.

02:47 10 BY MR. HANAUER:

11 Q. Okay. Can you answer my question?

12 A. I did answer it.

13 Q. Are you offering an opinion in this  
14 case on any use of XRP other than for trading or  
02:47 15 speculation?

16 MR. FIGEL: Objection.

17 THE WITNESS: I would say I have some  
18 background familiarity with that issue, but I am  
19 not expressing any separate opinion on that  
02:47 20 issue.

21 BY MR. HANAUER:

22 Q. Are you offering an opinion about the  
23 date by which any of Ripple's products that use  
24 XRP became commercially operational?

02:47 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: No, I'm not.

2 BY MR. HANAUER:

3 Q. Are you offering the opinion that XRP  
4 cannot be offered or sold as an investment  
02:48 5 contract -- let me rephrase.

6 Are you offering the opinion that XRP  
7 cannot be offered or sold as an investment  
8 contract under any circumstances?

9 MR. FIGEL: Objection.

02:48 10 THE WITNESS: That sounds like a legal  
11 opinion. I'm not offering any legal opinions on  
12 any subject.

13 BY MR. HANAUER:

14 Q. Can I ask you to look at page 12 of  
02:48 15 your report.

16 A. Okay.

17 Q. So you talk about in paragraph -- in  
18 section B of your report, you talk about  
19 confounding news or confounding information.

02:49 20 A. That's right.

21 Q. And I'm trying to figure out what you  
22 mean by "confounding news."

23 Are you talking about public  
24 announcements that Dr. [REDACTED] identified but  
02:49 25 didn't place on one of the 105 event days, or

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 are you talking about announcements from those  
2 105 event days that weren't really -- that, in  
3 your opinion, weren't really announcements about  
4 Ripple's efforts?

02:49 5 MR. FIGEL: Objection.

6 THE WITNESS: I don't think either one of  
7 those alternatives fairly describes the content  
8 of this particular section of my report.

9 BY MR. HANAUER:

02:50 10 Q. Okay. Well, then why don't you tell me  
11 what you mean by "confounding information" as it  
12 pertains to opinion B on page 2 of your report.

13 A. All right. Opinion B has a discussion  
14 of two different types of confounding  
02:50 15 information.

16 One type is a fundamental problem that  
17 I described earlier of -- many of Dr. [REDACTED]  
18 announcements are not -- to the extent there is  
19 a claim of a price reaction that's correlated  
02:50 20 with those announcements are not solely a  
21 product of Ripple's entrepreneurial efforts, but  
22 rather are a combination of Ripple's efforts and  
23 new information about supply and demand in the  
24 marketplace.

02:51 25 And as I said earlier, there is

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 basically a continuum from situations where both  
2 effects are occurring and it's really difficult  
3 or really impossible to disentangle them.

4 In other situations where Professor --  
02:51 5 excuse me, Dr. [REDACTED] himself recognizes the  
6 problem and just states as a matter of fact that  
7 it's not clear in some of his examples whether  
8 Ripple is even involved in the event itself that  
9 Ripple is announcing. That's closer to the  
02:52 10 example that I gave about the difference between  
11 creator of information and reporter of  
12 information. So that's one type of confounding  
13 information.

14 And the other type really relates to  
02:52 15 the fact that XRPs are not traded in an  
16 efficient market. And when you have information  
17 that's not traded in an efficient market, you  
18 don't really have a definitive theory of when  
19 prices are going to react to that information,  
02:52 20 whether they're going to react to that  
21 information without bias.

22 And, therefore, when you have  
23 confounding events, other I should say  
24 compounding news because I don't mean to limit  
02:52 25 myself to Dr. [REDACTED] 105 event days. But when

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 you have other news, even news that's contained  
2 in Dr. [REDACTED] -- I think it's Exhibit C with his  
3 500-plus announcements -- within a window -- and  
4 I describe different windows around the  
02:53 5 so-called event day -- because you're in a world  
6 of inefficient markets, you can't really  
7 attribute, even as a correlation, the price  
8 reaction to the event that Professor [REDACTED] --  
9 excuse me, Dr. [REDACTED] is claiming that there is a  
02:53 10 correlation because you can't exclude the  
11 possibility in an inefficient market.

12 The other news announcements in the  
13 different windows of time that I describe in  
14 Exhibit 2 also are responsible, at least in  
02:54 15 part, as well as other announcements in --  
16 outside even of the windows that I identified  
17 that could have had an effect on the prices that  
18 Dr. [REDACTED] claims are correlated with particular  
19 announcements -- with announcements on  
02:54 20 particular event days.

21 Q. Did you perform any work or analysis to  
22 quantify the impact of confounding news on XRP  
23 prices?

24 MR. FIGEL: Objection.

02:54 25 THE WITNESS: Again, I think the whole point

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 of an inefficient market is you can't quantify  
2 it because you don't have a theory of how  
3 quickly prices react to information. That's one  
4 of the characteristics of an inefficient market.

02:55 5 So what you can do, what I did do is  
6 identify other news that occurred in the same  
7 time period in the different windows that I  
8 describe in Exhibit 2 at the same time as the  
9 information that Dr. [REDACTED] claims as an event day  
02:55 10 that's correlated with a particular price  
11 reaction.

12 And that, as I stated in my report,  
13 really underestimates the significance of the  
14 fact that XRPs do not trade in an efficient  
02:55 15 market. Because in an inefficient market, there  
16 is no way to say, there is no way to conclude  
17 that those confounding announcements also didn't  
18 have an effect on the price that Dr. [REDACTED] claims  
19 is correlated with a particular announcement on  
02:56 20 a particular event day.

21 BY MR. HANAUER:

22 Q. If you had wanted, could you have been  
23 capable of checking for the -- if you had  
24 wanted, could you have been capable of trying to  
02:56 25 quantify the effect of confounding news?



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: I think under the facts and  
3 circumstances of this case, given the fact that  
4 XRP is trading in an inefficient market, I think  
02:56 5 it would be very difficult. I'm not sure how  
6 you do it.

7 BY MR. HANAUER:

8 Q. Did you perform any work or analysis to  
9 determine whether Dr. [REDACTED] results would  
02:56 10 change if he excluded confounding news days?

11 A. No, I didn't perform any such analysis  
12 since I think -- if you look at the two  
13 different types of confounding information, I'm  
14 not even sure how you would decide what to  
02:57 15 exclude.

16 Q. So going back to I think the first of  
17 the two definitions you talked about in  
18 describing confounding, the one where you said  
19 the Ripple news announcement, it's more about  
02:57 20 supply and demand than Ripple's efforts -- do  
21 you understand what I'm talking about or  
22 referring to?

23 A. I understand what you're talking about,  
24 but that's not an accurate paraphrase of what I  
02:57 25 said.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. Okay. You understand which of the  
2 versions of confounding I'm referring to?

3 A. Yes, I do understand that.

4 Q. Okay. So for those events, how did you  
02:58 5 determine whether a Ripple announcement related  
6 to, on one hand, Ripple's efforts, or the other  
7 information about the supply, demand, or  
8 expectation of market participants other than  
9 Ripple?

02:58 10 MR. FIGEL: Objection.

11 THE WITNESS: Again, that's a  
12 mischaracterization of what I said. It's not a  
13 matter of one or the other; it's both are  
14 occurring simultaneously, in effect. Because an  
02:58 15 announcement can reveal an effort by Ripple and  
16 it can also reveal information about supply and  
17 demand in the marketplace. So they can both be  
18 occurring at the same time.

19 And, again, it is like the problem of  
02:59 20 confounding information in more traditional  
21 event studies where, when you have confounding  
22 information, when you can't disentangle, it  
23 makes it impossible to reach a conclusion about  
24 the -- what part of the price reaction is  
02:59 25 attributable to one aspect, one part of the

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 confounding information versus another part.

2 Sometimes there is external sources of  
3 information that you can look to to, you know,  
4 possibly reach some judgments depending, you  
02:59 5 know, obviously on the relevant facts and  
6 circumstances. But sometimes it's just  
7 impossible. And you have to recognize that, and  
8 that's something that Dr. [REDACTED] doesn't do.

9 But, again, I want to emphasize,  
03:00 10 sometimes it's possible to say something  
11 stronger than that. And I keep coming back to,  
12 you know, the example of an event which produces  
13 news that's announced by a third party. And the  
14 announcement by a third party can be what causes  
03:00 15 the price reaction, but it's just disclosing  
16 events that are not caused by the party  
17 disclosing the information.

18 In a situation like the example that I  
19 used before of third parties deciding to allow  
03:01 20 XRP to trade on their platforms, it's similar to  
21 that. Ripple is announcing that other parties  
22 are now allowing XRP to trade on their  
23 platforms. And Dr. [REDACTED] somewhere has a  
24 footnote where it's either that example or some  
03:01 25 other example where he says it's not even clear

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 that Ripple had any involvement in any of the  
2 events that it's announcing.

3 And those type of situations, which are  
4 part of Dr. Ripple's [sic] 105 days, the days  
03:01 5 that he considers relevant as opposed to the 400  
6 or so that he, for all practical purposes,  
7 ignores, that really highlights the problem,  
8 those type of situations. Because those  
9 situations are not only compounded, but they  
03:02 10 really highlight the distinction between, as I  
11 said, creating information and reporting  
12 information, which professor -- excuse me,  
13 Dr. [REDACTED] ignores. And that's the problem.

14 BY MR. HANAUER:

03:02 15 Q. So in Exhibit C -- or I'm sorry,  
16 Appendix C to Dr. [REDACTED] report, he actually  
17 lists all the news announcements he covered in  
18 his event study?

19 A. That's my understanding.

03:02 20 Q. And did you read the contents of all  
21 those news announcements?

22 A. No, I did not.

23 Q. Did you read the contents of any of  
24 those news announcements?

03:03 25 A. You know, at least parts that Dr. [REDACTED]

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 quoted in his report.

2 Q. Only the ones he quoted in his report?

3 A. I think so. I don't remember doing any  
4 kind of systematic investigation of the ones  
03:03 5 that he either ignored entirely or even the ones  
6 that he used as part of event days.

7 I guess I read what he considered  
8 relevant.

9 Q. Well, do you know whether Dr. [REDACTED] read  
03:03 10 the entirety of all those reports?

11 MR. FIGEL: Objection.

12 THE WITNESS: No. You would have to ask him.

13 BY MR. HANAUER:

14 Q. Are you offering any opinions on the  
03:03 15 efforts Ripple took to increase demand for XRP?

16 MR. FIGEL: Objection.

17 THE WITNESS: Not in isolation, no, I'm not.

18 BY MR. HANAUER:

19 Q. Are you offering any opinions on  
03:04 20 whether Ripple's efforts affected demand for  
21 XRP?

22 MR. FIGEL: Objection.

23 THE WITNESS: I'm not offering a separate  
24 opinion on that subject.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Could Ripple take efforts that would  
3 increase demand for XRP?

4 A. Yes, obviously.

03:04 5 Q. Are you offering any opinions on the  
6 efforts Ripple took to impact supply of XRP?

7 MR. FIGEL: Objection.

8 THE WITNESS: Again, I have, you know, some  
9 background in my report on what Ripple did with  
03:04 10 respect to supply of XRP. That's like some of  
11 the other questions that you asked, part of  
12 background, part of the facts and circumstances  
13 of the case. But I'm not offering a separate  
14 opinion about it.

03:05 15 BY MR. HANAUER:

16 Q. Are you offering any opinions on  
17 whether Ripple -- Ripple's efforts actually did  
18 affect the supply of XRP?

19 MR. FIGEL: Objection.

03:05 20 THE WITNESS: Again, I'm not offering any  
21 separate opinions about that. I have discussion  
22 of that in the background section of my report,  
23 but it's not a separate opinion.

24 BY MR. HANAUER:

03:05 25 Q. And all things being equal, from an

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 economics perspective, if demand for an asset  
2 stays flat and the supply of that asset goes  
3 down, should we expect the price of that asset  
4 to go up?

03:05 5 MR. FIGEL: Objection.

6 THE WITNESS: Well, it would depend on the  
7 shape of the supply curve. But, you know,  
8 that's certainly a reasonable assumption that  
9 that would happen frequently, I guess. I don't  
03:06 10 know what else to say.

11 But in any particular situation,  
12 obviously you'd have to analyze the relevant  
13 facts and circumstances and look at the data to  
14 form a conclusion.

03:06 15 BY MR. HANAUER:

16 Q. Are you offering any opinions on the  
17 efforts Ripple took to increase the price of  
18 XRP?

19 MR. FIGEL: Objection.

03:06 20 THE WITNESS: No, I'm not, not as a separate  
21 opinion.

22 BY MR. HANAUER:

23 Q. Are you offering any opinions on  
24 whether any of Ripple's efforts actually did  
03:06 25 affect XRP's price?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           A.    I think I said earlier that we did try  
2 and look at the biggest price reactions of XRP  
3 and look at certain disclosures by Ripple at  
4 very -- at the same period as the price  
03:07 5 reactions or very close to the price reactions.

6                   And I think I said it seemed  
7 reasonable, with respect to that handful set of  
8 price reactions, to conclude that there was at  
9 least a correlation between the announcements  
03:07 10 and -- with respect to those few announcements,  
11 those announcements and price reactions and  
12 even, you know, be stronger than that and, you  
13 know, at least as a working hypothesis, you  
14 know, conclude that there was likely a causal  
03:08 15 relationship.

16           Q.    Are you offering any opinions on  
17 whether Ripple's efforts, independent of public  
18 news announcements, affected XRP's price?

19           MR. FIGEL:  Objection.

03:08 20           THE WITNESS:  I'm not offering any separate  
21 opinions on that subject.

22           BY MR. HANAUER:

23           Q.    Are you offering any opinions on the  
24 efforts Ripple took to increase the liquidity of  
03:08 25 XRP?



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: Same answer.

3 BY MR. HANAUER:

4 Q. Are you offering any opinions on how  
03:08 5 liquidity of XRP affects its price?

6 MR. FIGEL: Objection.

7 THE WITNESS: No, I'm not.

8 BY MR. HANAUER:

9 Q. Can I ask you to look at paragraph 22  
03:09 10 of your report.

11 A. Okay.

12 Q. And what do you mean when you say that  
13 [as read]: Statistically significant XRP  
14 returns are correlated with announcements  
03:09 15 related to the expected supply and demand for  
16 XRP or other market conditions?

17 A. Well, I mean, there's a whole paragraph  
18 that describes it. I mean, there's a -- there's  
19 a couple of points.

03:10 20 One, just like all the questions that  
21 you just asked me, the company's associated  
22 products want those profits to be successful in  
23 terms of whatever it is, increasing demand,  
24 increasing liquidity, increasing price,  
03:10 25 affecting supply.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1           So, again, there's no distinction  
2 between any of those outcomes or intentions by  
3 companies that in any way is linked to whether  
4 or not something is a security.

03:10 5           That's like the other things that I've  
6 already described, which are completely generic  
7 that have nothing to do with whether something  
8 is a security. And that's just a continual  
9 methodological flaw in Dr. [REDACTED] analysis.

03:11 10          Q.    I apologize because I think we're --  
11 you may not have understood the question or I  
12 did a bad job of asking it.

13           Can I just ask you: What did you mean  
14 when you were referring to statistically  
03:11 15 significant XRP returns?

16          A.    Okay. That's a completely different  
17 question.

18          Q.    Yeah, and I'm sorry. That's the one I  
19 would like for you to discuss.

03:11 20          A.    That's fine.

21           I meant returns that, in Dr. [REDACTED]  
22 event study, he found to be statistically  
23 significant in either a parametric or a  
24 nonparametric test in either a one- or a  
03:11 25 two-tailed test.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. And are you -- did you do any work or  
2 analysis that disputes that finding of  
3 statistical significance?

4 A. You mean whether Dr. [REDACTED] calculated  
03:11 5 statistical significance correctly using the  
6 model that he used?

7 Q. Yes.

8 A. And the days that he chose? No, other  
9 than, you know, describing the extreme  
03:12 10 subjectivity of what he did and looking at  
11 positive results, not negative results.

12 I mean, there's a lot of criticisms,  
13 but the actual calculation that he did of what's  
14 a statistically significant return based on the  
03:12 15 model that he used, I didn't do any work to see  
16 whether his regression -- his regression result,  
17 given the regression that he used and the data  
18 that he used for the regression, that the data  
19 that he reported was an accurate description of  
03:12 20 the data resulting from the regression.

21 Q. And what was your methodology for  
22 trying to determine if an announcement related  
23 to supply, demand, or expectations of market  
24 participants on one hand or Ripple's efforts on  
03:13 25 the other?

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1           A.     The methodology was to highlight how  
2 various announcements have both effects going on  
3 simultaneously. And some of the announcements,  
4 as I've said several times, and as Dr. [REDACTED]  
03:13 5 himself concedes, are announcements about  
6 actions by third parties that have very little,  
7 if anything, to do with actions by Ripple  
8 itself.

9           Q.     For Ripple's own announcements, what  
03:13 10 was your methodology for determining whether the  
11 announcement related to supply or demand, as  
12 opposed to Ripple's efforts?

13           A.     It's basically what I've already said.

14           Q.     Can you elaborate?

03:14 15           A.     Yeah. I just highlighted how various  
16 announcements contain information about Ripple's  
17 efforts, as well as new information about supply  
18 and demand conditions in the marketplace where  
19 it's very hard, if not impossible, to  
03:14 20 disentangle those two.

21                     But also, there are certain events that  
22 Dr. [REDACTED] includes in his event days where he  
23 himself concedes that there's no obvious  
24 relationship or any relationship between  
03:14 25 Ripple's actions and the effect of the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 announcement that Ripple itself makes.

2 Q. For the announcements that you didn't  
3 actually read, what was your basis for  
4 determining whether those announcements related  
03:15 5 to supply or demand as opposed to Ripple's  
6 efforts?

7 MR. FIGEL: Objection.

8 THE WITNESS: Because I read how Dr. [REDACTED] in  
9 his report characterized them, his justification  
03:15 10 for why he included them, and how he described  
11 them, and was able to reach the conclusions that  
12 I reached as described in my report.

13 BY MR. HANAUER:

14 Q. Could another expert reasonably reach  
03:15 15 the conclusion that the announcements Dr. [REDACTED]  
16 analyzed did, in fact, relate to Ripple's  
17 efforts as opposed to supply and demand?

18 MR. FIGEL: Objection.

19 THE WITNESS: That's, again, a  
03:15 20 mischaracterization of my opinion and what I've  
21 said. As to what another expert could conclude,  
22 you'd have to ask them.

23 BY MR. HANAUER:

24 Q. You talk about how some of the  
03:16 25 announcements Dr. [REDACTED] looked at related to the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 expectations of market participants as opposed  
2 to Ripple's efforts; is that right?

3 A. You know, I think there is some  
4 sentences to that effect, if I remember  
03:16 5 correctly. But why don't you point me to  
6 whatever it is that you're referring to so I can  
7 respond directly.

8 Q. So in paragraph 21 of your report.

9 A. Okay.

03:16 10 Q. I think in the third sentence you say  
11 how information about Ripple's efforts could be  
12 confounded about information about the  
13 expectations of market participants.

14 MR. FIGEL: Mr. Hanauer, just so the record  
03:17 15 is clear, would you mind reading the sentence  
16 you're referring to?

17 BY MR. HANAUER:

18 Q. The third sentence of paragraph 21 of  
19 your report. Do you see that?

03:17 20 A. Beginning "Such confounding  
21 information"?

22 Q. Correct.

23 A. Okay, I've read it.

24 Q. So the expectations of market  
03:18 25 participants, is that one of the factors of the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1   Howey test?

2       MR. FIGEL:  Objection.

3       THE WITNESS:  That's a legal question.  I  
4   don't have any legal opinions that I'm offering  
03:18 5   in this case.

6   BY MR. HANAUER:

7       Q.   Well, you state in your report a  
8   section of Howey and then you say it's referred  
9   to as the Howey test.

03:18 10       MR. FIGEL:  Objection.

11   BY MR. HANAUER:

12       Q.   Paragraph seven.

13       A.   I say my understanding is that's a  
14   description of the Howey test, correct.

03:18 15       Q.   And one of the factors that you  
16   describe the Howey test involves the expectation  
17   of market participants?

18       A.   Are you saying -- is that contained in  
19   what I quoted in paragraph seven?  I'm not sure  
03:18 20   what you're asking me.

21       Q.   So I'm guessing -- or I'm asking:  Why  
22   is it proper to consider Ripple announcements  
23   that discuss the expectation of market  
24   participants a confounding event if that is one  
03:19 25   of the factors of a Howey test?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: Again, that sounds like partly  
3 a -- or entirely a legal -- asking for a legal  
4 opinion, which I'm not giving.

03:19 5 But you're also not focusing or looking  
6 at the whole sentence which describes what's  
7 meant not in terms of a legal opinion, but in  
8 terms of how to interpret price movements.

9 BY MR. HANAUER:

03:19 10 Q. Did you do anything to determine  
11 whether the expectation of market participants  
12 was impacted by their expectation of Ripple's  
13 efforts?

14 MR. FIGEL: Objection.

03:20 15 THE WITNESS: You know, again, that's too  
16 vague a question.

17 But it also, again, is a kind of  
18 generic question that does not in any way  
19 distinguish the relationship between Ripple and  
03:20 20 XRP and countless other examples of exactly the  
21 same thing that have nothing to do with any of  
22 the issues relating to what's -- what is a  
23 security, if what you're asking me is, is there  
24 any relationship between Ripple's efforts and  
03:20 25 investors' expectations about XRP. If that --



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 that's the way I understood the question.

2 BY MR. HANAUER:

3 Q. That's not my question.

4 My question is --

03:20 5 A. Okay. Then maybe I misunderstood the  
6 question.

7 Q. -- is whether you did anything to  
8 determine whether the expectation of any market  
9 participant was impacted by that participant's  
03:21 10 expectation of Ripple's efforts?

11 MR. FIGEL: Objection.

12 THE WITNESS: All right. Well, at least to  
13 me that's the same question.

14 I didn't do any independent analysis.  
03:21 15 I don't have any independent opinion on that  
16 subject other than to the extent that  
17 relationship exists; it is a generic  
18 relationship having nothing to do with anything  
19 that's specific to the relationship between  
03:21 20 Ripple and XRP but has to do with the  
21 relationship between efforts of firms or  
22 companies or founders, whatever the relevant  
23 issue that's being -- or situation that's being  
24 analyzed, and whatever the firm or product --  
03:21 25 firm or founder or, again, whatever the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 situation is that's being analyzed, what they  
2 are doing and how that affects expectations of  
3 whatever, whether it's a product or an  
4 investment, whatever it is.

03:22 5 It's a completely generic question  
6 that, no matter how it's resolved, has nothing  
7 to do with anything specific about the  
8 relationship between Ripple and XRP.

9 BY MR. HANAUER:

03:22 10 Q. Did you do anything to determine the  
11 expectation of any particular market  
12 participant?

13 A. No, I did not.

14 MR. HANAUER: What do you say we take a break  
03:22 15 right now.

16 THE VIDEOGRAPHER: We are going off the  
17 record. The time is 3:23 p.m.

18 (Whereupon, a recess was had at  
19 3:23 p.m., after which the  
03:22 20 deposition was resumed at  
21 3:23 p.m. as follows:)

22 THE VIDEOGRAPHER: This is the end of media  
23 unit two. We are going off the record. The  
24 time is 3:23 p.m.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 (Whereupon, a recess was had at  
2 3:23 p.m., after which the  
3 deposition was resumed at  
4 3:42 p.m. as follows:)

03:42 5 THE VIDEOGRAPHER: We are --

6 MR. FIGEL: Before we -- could we just get a  
7 time check?

8 THE VIDEOGRAPHER: Oh, I'm sorry. Yeah,  
9 we've been on the record for 4 hours and  
03:42 10 14 minutes.

11 MR. FIGEL: And not holding you to anything  
12 Ben, but do you think we're going to go the full  
13 whole seven?

14 MR. HANAUER: I hope not.

03:42 15 MR. FIGEL: Okay, good.

16 THE VIDEOGRAPHER: All right. We are back on  
17 the record. This is the start of media unit  
18 three, the deposition of Daniel Fischel. The  
19 time is 3:42 p.m.

03:42 20 You may proceed.

21 BY MR. HANAUER:

22 Q. Professor Fischel, can I please refer  
23 you to paragraph 23 of your report.

24 A. Okay.

03:42 25 Q. And do you see in romanette (i) you

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 talk about how announcements about Ripple's  
2 equity financing provide information about the  
3 state of the market for XRP?

4 A. Yes, I see that.

03:43 5 Q. What information do Ripple's financing  
6 amount -- I mean financing announcements provide  
7 about the state of the market of XRP?

8 A. Well, as the paragraph describes,  
9 Ripple has different sources of -- different  
03:43 10 sources of funds. Equity issuances and selling  
11 XRP units are two different sources of funds.

12 So the more Ripple relies on one source  
13 of funds, all else equal can communicate  
14 information to market participants about their  
03:44 15 need to use alternative sources of funds, such  
16 as selling units of XRP.

17 So I would say that's an example of  
18 what -- as the section describes, as a compound  
19 announcement. The announcement itself is about  
03:44 20 an equity issuance by Ripple.

21 But one of the reasons it has a price  
22 effect is not because of just the equity  
23 issuance by Ripple itself, which does not  
24 directly involve XRP, but rather information  
03:45 25 that it communicates about XRP.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1           And that's, again, an example of what I  
2   refer to as a compound announcement because it's  
3   an announcement about one thing that has nothing  
4   to do with XRP but it communicates information  
03:45 5   about market conditions for XRP, and, therefore,  
6   it's a compound announcement.

7           Q.   Did you do anything to determine  
8   whether obtaining equity financing actually  
9   decreased the supply of XRP?

03:45 10          MR. FIGEL:  Objection.

11          THE WITNESS:  Well, first of all, that's not  
12   what the paragraph says.  But the answer, did I  
13   actually investigate that question, no, I  
14   didn't.

03:46 15          BY MR. HANAUER:

16          Q.   Could Ripple increase its capital  
17   expenditures and research and development  
18   spending using the newly-obtained equity  
19   financing while keeping its XRP sales at the  
03:46 20   same level?

21          MR. FIGEL:  Objection.

22          THE WITNESS:  Is that possible?  Yes, it's  
23   possible.

24          BY MR. HANAUER:

03:46 25          Q.   Do you know whether or not Ripple did

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 that?

2 A. No, I don't. I didn't investigate that  
3 question.

4 But, again, that's not the point of the  
03:46 5 paragraph.

6 Q. If Ripple ceased to exist as a company,  
7 how would that impact the market for XRP?

8 MR. FIGEL: Objection.

9 THE WITNESS: I don't know. One would have  
03:46 10 to speculate about the future, which is not so  
11 easy.

12 And I don't know if it would be  
13 possible to give a definitive answer because one  
14 doesn't know what could happen in the future.

03:46 15 BY MR. HANAUER:

16 Q. Do you have an opinion one way or the  
17 other?

18 MR. FIGEL: Objection.

19 THE WITNESS: I don't.

03:47 20 BY MR. HANAUER:

21 Q. Does Ripple going out and obtaining  
22 equity financing, does that involve efforts by  
23 Ripple?

24 A. Well, it's a decision made by Ripple  
03:47 25 for sure. And what's done to the method for

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 what Ripple -- the steps that Ripple takes to  
2 raise equity funds, you just have to investigate  
3 that. I can't answer that in the abstract.

4 Q. Do you know how much money Ripple spent  
03:47 5 to obtain equity financing?

6 A. No, I don't, not from memory.

7 Q. Did you review any documents that would  
8 have shed light on how much money Ripple spent  
9 to obtain equity financing?

03:48 10 MR. FIGEL: Objection.

11 THE WITNESS: Not that I recall.

12 But, again, I wasn't looking for that  
13 information, so it's possible that it was in  
14 some document that I saw, but I don't recall any  
03:48 15 discussion of that in any document that I  
16 remember reviewing.

17 BY MR. HANAUER:

18 Q. And do you have any understanding of  
19 whether the parties that provided equity  
03:48 20 financing to Ripple, whether those parties  
21 sought out Ripple on their own or were they  
22 solicited by Ripple?

23 A. I don't know.

24 Q. And in paragraph 23, romanette (i), you  
03:48 25 mention Ripple's decision to escrow 55 billion

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 XRP tokens?

2 MR. FIGEL: Objection.

3 THE WITNESS: Yes, that's right.

4 BY MR. HANAUER:

03:49 5 Q. Was that an effort of Ripple to escrow  
6 the 55 billion XRP?

7 A. Well, it was a decision by Ripple, yes,  
8 it was.

9 Q. Could that escrowing have occurred  
03:49 10 without Ripple's efforts?

11 MR. FIGEL: Objection.

12 THE WITNESS: Well, by definition, no, it  
13 couldn't.

14 BY MR. HANAUER:

03:49 15 Q. And in paragraph 23 (i), you also --  
16 or, I'm sorry, paragraph 23 romanette (i), you  
17 talk about Ripple receiving New York's first  
18 BitLicense.

19 A. Yes, that's right.

03:50 20 Q. And did Ripple have to undertake  
21 efforts to obtain that license?

22 A. I don't know.

23 Q. Do you know how much money Ripple spent  
24 associated with applying for the BitLicense?

03:50 25 A. No, I don't.



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. In the next paragraph, paragraph 23,  
2 romanette (ii), you talk about the trading  
3 platforms.

4 A. Yes, I see that.

03:50 5 Q. Do you know what efforts Ripple  
6 undertook to get listed on any particular  
7 exchange?

8 MR. FIGEL: Objection.

9 THE WITNESS: No, I haven't studied that  
03:51 10 either.

11 BY MR. HANAUER:

12 Q. Do you know whether Ripple paid money  
13 to get listed on any exchange?

14 MR. FIGEL: Objection.

03:51 15 THE WITNESS: No, I don't.

16 BY MR. HANAUER:

17 Q. Do you know any particular exchange's  
18 reasons for listing XRP?

19 A. No, I don't.

03:51 20 Q. If Ripple paid an exchange to list XRP,  
21 would that exchange listing of XRP involve  
22 Ripple's efforts?

23 A. It would -- yes. If I make that  
24 assumption, it would involve Ripple's efforts,  
03:51 25 but that's not the same as saying that the

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 information communicated would be solely as a  
2 result of Ripple's efforts.

3 And even with respect to Ripple's  
4 efforts, what I've referred to several times,  
03:52 5 but I didn't have Dr. [REDACTED] report in front of  
6 me, is paragraph 49 -- I'm sorry, footnote 49,  
7 where he states -- or at least it's -- or  
8 there's a reference to his report Figure 16,  
9 where on page 34 of Dr. [REDACTED] report where he  
03:52 10 acknowledges that the majority of the 11  
11 announcements involve Ripple's actions.

12 Q. But did Dr. [REDACTED] actually look to --  
13 did Dr. [REDACTED] do anything to determine why any  
14 particular exchange listed XRP?

03:52 15 MR. FIGEL: Objection.

16 THE WITNESS: You'll have to ask him. I  
17 don't know what he did. I know what he  
18 acknowledged.

19 BY MR. HANAUER:

03:53 20 Q. In that same paragraph 23, romanette  
21 (ii), you talk about how other cryptocurrencies  
22 such as Bitcoin are listed on platforms without  
23 the effort of a company like Ripple.

24 A. Yes, I see that.

03:53 25 Q. Do you know what cryptocurrencies other

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 than Bitcoin have been listed on exchanges  
2 without the effort of a sponsoring company?

3 MR. FIGEL: Objection.

4 THE WITNESS: No, I don't.

03:54 5 BY MR. HANAUER:

6 Q. At the time the first exchange listed  
7 Bitcoin, was there a company that owned the  
8 majority of Bitcoin in existence?

9 A. I don't believe so.

03:54 10 Q. Has there ever been a company that  
11 owned the majority of Bitcoin in existence?

12 A. Not as far as I know.

13 Q. So I want to refer you now to the next  
14 two subparagraphs, paragraph 23, romanette (iii)  
03:54 15 and (iv).

16 Do you see those?

17 A. Yes, I see that.

18 Q. Do you know what efforts Ripple  
19 undertook to get users to use its products?

03:55 20 MR. FIGEL: Objection.

21 THE WITNESS: No, I haven't studied that  
22 question.

23 Again, it's like so many questions, one  
24 of his completely generic questions having  
03:55 25 nothing to do with any particular relationship

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 between Ripple and XRP.

2 BY MR. HANAUER:

3 Q. Do you know whether Ripple paid  
4 rebates, incentives, bonuses, or other  
03:55 5 compensation in order to get users to use  
6 Ripple's products and software?

7 MR. FIGEL: Objection.

8 THE WITNESS: No, I don't.

9 BY MR. HANAUER:

03:55 10 Q. Do you know any particular user's  
11 reasons for using Ripple's products?

12 A. Other than they made a decision it was  
13 in their interests to do so, no, I don't.

14 Q. If Ripple paid someone to use its  
03:55 15 products, would that person's decision to use  
16 the product involve Ripple's efforts?

17 MR. FIGEL: Objection.

18 THE WITNESS: Yes. But --

19 MR. FLUMENBAUM: Objection.

03:56 20 THE COURT REPORTER: He said objection. Got  
21 it.

22 MR. FLUMENBAUM: Thank you. I didn't hear  
23 Reid.

24 MR. FIGEL: I did object, Marty.

03:56 25 MR. FLUMENBAUM: Good.

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 THE WITNESS: I just wanted to finish my  
2 answer.

3 The point is not that all these actions  
4 had no involvement by Ripple, although some of  
03:56 5 them apparently did not have any, at least  
6 according to Dr. [REDACTED].

7 But the point is that the information  
8 content of the announcement was not solely a  
9 product of Ripple's actions.

03:56 10 And one of the ways that you can tell  
11 that is that the actions frequently don't even  
12 involve XRP. They involve use of Ripple's  
13 software, use of Ripple's equity issuances. But  
14 they have a price effect on XRP.

03:57 15 Now, why is that? Again, taking  
16 Dr. [REDACTED] findings and his analysis at face  
17 value, the reason is that the information  
18 content of an announcement that has nothing to  
19 do with XRP communicates information to market  
03:57 20 participants about market conditions for XRP  
21 and, therefore, there is a price reaction for  
22 XRP, at least according to Dr. [REDACTED], a  
23 correlation with the price reaction for XRP in  
24 connection with an announcement that on its face  
03:57 25 has nothing to do with XRP.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 And that's, again, a simple and clear  
2 example of why these announcements are compound  
3 announcements with respect to explanations of  
4 price movements of XRP, even taking Dr. [REDACTED]  
03:58 5 findings at face value.

6 BY MR. HANAUER:

7 Q. So which of Dr. -- the announcements  
8 analyzed by Dr. [REDACTED], which of those  
9 announcements had nothing to do with XRP?

03:58 10 MR. FIGEL: Objection.

11 THE WITNESS: Announcements that don't refer  
12 to XRP but at least what I'm just referring to,  
13 announcements that refer to actions by Ripple  
14 independent of actions about XRP, such as  
03:59 15 Ripple's equity issuances and use by customers  
16 of Ripple's software.

17 BY MR. HANAUER:

18 Q. Can you name any of the announcements  
19 Ripple made about its software that involved  
03:59 20 software that did not require the use of XRP?

21 MR. FIGEL: Objection.

22 THE WITNESS: It's not whether the software  
23 could be used for XRP. That is one of the  
24 factors that explains -- or that communicates  
03:59 25 information about potential increase in demand

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 for XRP.

2 But the point is the announcement is  
3 itself -- the announcement itself is about  
4 decisions by third parties to use Ripple's  
04:00 5 software. And that, notwithstanding the fact  
6 that the announcement itself is about a decision  
7 to use Ripple's software, again, as the  
8 paragraph states, that also communicates  
9 information about the expected supply and demand  
04:00 10 for XRP from users of the XRP ledger.

11 BY MR. HANAUER:

12 Q. Do you know which of Ripple's products  
13 required the use of XRP?

14 A. No, not without studying the issue.  
04:00 15 But I don't have any opinion on that.

16 Q. Are you aware that some of Ripple's  
17 products and software required XRP to work?

18 A. I think Ripple had a number of  
19 different products, some related to XRP, some  
04:00 20 not, some payment system products not related to  
21 XRP.

22 But beyond that, I haven't studied the  
23 issue and I certainly don't have an opinion  
24 about it.

04:01 25 Q. Can we look at Exhibit 2 to your

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 report, please.

2 A. Okay.

3 Q. Who prepared Exhibit 2 to your report?

4 A. This is just like Exhibit 1. We looked  
04:01 5 at Dr. [REDACTED] backup. He has a series of  
6 columns, as I recall, about other announcements  
7 in his Exhibit C within certain periods of his  
8 event days. And we just took that data that he  
9 himself reports and just transferred it to  
04:02 10 Exhibit 2.

11 Q. I asked who prepared it.

12 A. You mean who -- again, I'm sorry the  
13 same question who physically prepared Exhibit 2?

14 Q. Yes.

04:02 15 A. I don't know who physically prepared  
16 Exhibit 2. It might have been a research  
17 assistant.

18 Q. Did you do anything to verify the  
19 accuracy of Exhibit 2?

04:02 20 A. Well, something. I mean, I looked at  
21 the various documents in Dr. [REDACTED] event study  
22 to see how the numbers on Exhibit 2 were  
23 created. You know, I guess that's what we did.

24 Q. Does Exhibit 2 to your report, does it  
04:03 25 only identify news announcements that Dr. [REDACTED]



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 identified that were not included in his 105  
2 news days?

3 MR. FIGEL: Objection.

4 THE WITNESS: It refers to other  
04:03 5 announcements on Dr. [REDACTED] Exhibit C  
6 surrounding one or more of Dr. [REDACTED] event  
7 days. But, frankly, I'm not sure from memory  
8 without checking whether any of the confounding  
9 announcements were also themselves event days.  
04:04 10 I would have to check to make sure.

11 BY MR. HANAUER:

12 Q. Did Dr. [REDACTED] determine that the  
13 announcements that were not in his five select  
14 categories would not be expected to move XRP  
04:05 15 prices?

16 MR. FIGEL: Objection.

17 THE WITNESS: I think that's what he said in  
18 his report.

19 BY MR. HANAUER:

04:05 20 Q. And did you do any work or analysis to  
21 determine whether the excluded events actually  
22 did affect Ripple -- or XRP's price?

23 MR. FIGEL: Objection.

24 THE WITNESS: I didn't. But the point is  
04:05 25 there is kind of a selection bias, a

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 subjectivity that produces a selection bias.

2 If you want to test the effective  
3 announcements on prices, if you start by picking  
4 your subjective judgment of the events that have

04:06 5 -- are the most likely to have an effect on

6 prices, it's no big surprise that your

7 subjective judgment, if you do it competently,

8 is more likely to produce events that are

9 correlated with price movements because that's

04:06 10 your selection criteria.

11 If you select important events, you're

12 going to get a result that reflects your

13 selection bias, that you're starting with

14 important events that you subjectively identify

04:06 15 and your results are going to reflect that.

16 It's different than analyzing the

17 number of -- the percentage of statistically

18 significant results and not statistically

19 significant results. If you don't use that

04:07 20 selection bias, then you start with all 500

21 days, for example, you would get different

22 results.

23 BY MR. HANAUER:

24 Q. Of the approximately 400 events that

04:07 25 Dr. [REDACTED] excluded from his analysis, how many of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 those news announcements did you read the  
2 contents of in their entirety?

3 MR. FIGEL: Objection.

4 THE WITNESS: You know, I would say, unless  
04:07 5 their results were quoted somewhere, probably  
6 none. In terms of the description of them, I  
7 certainly read the description provided by  
8 Dr. [REDACTED] of them and why he, in his opinion,  
9 decided not to include them in his results.

04:08 10 BY MR. HANAUER:

11 Q. Are you offering the opinion that any  
12 particular of the announcements that Dr. [REDACTED]  
13 excluded from his analysis actually confounded  
14 or otherwise affected Dr. [REDACTED] analysis?

04:08 15 MR. FIGEL: Objection.

16 THE WITNESS: Well, clearly it affected his  
17 analysis because he ignored 400 out of the 500  
18 days, rounding. Yes, that affects your  
19 analysis.

04:08 20 If you have a percentage of days with  
21 significant results and a percentage of days  
22 without significant results, even if you're just  
23 talking about correlations, forgetting all the  
24 other methodological flaws that I've identified,  
04:08 25 obviously it affects your results if you throw

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 out 400 days and don't consider them and only  
2 look at 100 and of those 100 only look at a  
3 small subset of those days when there are  
4 statistically -- you find a correlation with  
04:09 5 statistically significant results. Obviously  
6 that affects your results and your analysis.

7 BY MR. HANAUER:

8 Q. Did you perform any work or testing to  
9 see how [REDACTED] analysis would have changed if  
04:09 10 any of the excluded events had, in fact, been  
11 included?

12 MR. FIGEL: Objection.

13 THE WITNESS: I think the point is obvious  
14 from what I said. Assuming that there was some  
04:09 15 principal reason for choosing -- selecting the  
16 100 events to test and excluding the 400, if you  
17 used 500 events, you would get a much lower  
18 percentage of statistically significant days  
19 relative to 500 days than you do relative to 100  
04:10 20 days, rounding. I think it's 105 days, but it's  
21 the same point.

22 BY MR. HANAUER:

23 Q. But did you actually do any testing  
24 that included the events that Dr. [REDACTED] excluded?

04:10 25 A. I didn't do any testing. But Dr. [REDACTED]

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 himself states that in his report as the reason  
2 why he excluded the 400 other events or the  
3 400 -- you know, events have sort of a double  
4 meaning in this case. So why he excluded the  
04:10 5 400 other announcements is probably more  
6 accurate.

7 Q. And if I wanted to see how the results  
8 would change by including events that Dr. [REDACTED]  
9 excluded, would that require doing another  
04:11 10 iteration of the event study with additional  
11 events in it?

12 MR. FIGEL: Objection.

13 THE WITNESS: Well, additional announcements  
14 -- and, again, in answering these questions, I'm  
04:11 15 just accepting Professor -- Dr. [REDACTED] analysis  
16 at face value, meaning I'm not focused on the  
17 deficiency caused -- deficiencies caused by the  
18 fact that you're interpreting -- or Dr. [REDACTED] is  
19 interpreting price reactions in relation to  
04:11 20 announcements in an inefficient market, which,  
21 you know, creates serious problems of its own.

22 But putting that all to one side, it  
23 would be possible to duplicate what Dr. [REDACTED]  
24 did, accepting all of his conditions, selection  
04:12 25 criteria, and putting to one side all the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 methodological flaws associated with doing that,  
2 and do the exact same announcements with -- the  
3 exact same analysis with 500 announcements as he  
4 does with 100 announcements, again rounding the  
04:12 5 500 and the 100.

6 BY MR. HANAUER:

7 Q. It would be possible to do that  
8 testing?

9 A. Yes, absolutely it would be possible.

04:12 10 Q. Did you or Compass, in fact, do that  
11 testing?

12 A. No, for the reason that I stated. And  
13 it's also described by Dr. [REDACTED] himself as part  
14 of his methodology and the reasons why he used  
04:12 15 that methodology.

16 Q. I would ask you to assume that Dr. [REDACTED]  
17 was correct, that the excluded events should not  
18 be included in his testing.

19 If we were to accept that assumption,  
04:13 20 would Exhibit 2 still support the opinion that  
21 the announcements Dr. Metz analyzed may be  
22 confounded by other contemporaneous  
23 announcements?

24 MR. FIGEL: Objection.

04:13 25 THE WITNESS: Yes. The point would still

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 apply.

2 BY MR. HANAUER:

3 Q. And why is that?

4 A. Because you don't have to have a  
04:13 5 statistically significant price reaction to have  
6 an effect on prices. And particularly in an  
7 inefficient market, you cannot confidently, even  
8 as a matter of correlation, associate particular  
9 price movements with particular announcements.  
04:14 10 And if you have multiple announcements, you  
11 can't tell if the, for example, the announcement  
12 that you are calling statistically significant  
13 is only statistically significant because it's  
14 partly reflecting the effects of another  
04:14 15 announcement in the same window, you know, just  
16 as an example.

17 It's just another illustration of --  
18 about Dr. [REDACTED] recognizing that he's dealing  
19 with an inefficient market but not appreciating  
04:14 20 the significance and the consequence and the  
21 implications of that admission.

22 Q. Did you look at any news announcements  
23 beyond the 504 -- 514 identified by Dr. [REDACTED]?

24 A. Not that I recall.

04:15 25 Q. Do you consider repetitive news as

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 value relevant news that should be considered  
2 separately for measuring price impact?

3 MR. FIGEL: Objection.

4 THE WITNESS: Again, it depends entirely on  
04:15 5 the relevant facts and circumstances. It is  
6 certainly possible that information that would  
7 generally be referred to as stale, the price  
8 reaction to that would have to be interpreted in  
9 light of the fact that the information is stale.

04:15 10 On the other hand, sometimes repetition  
11 of the same information makes the information  
12 more important, not less important. It just  
13 depends on the relevant facts and circumstances.

14 BY MR. HANAUER:

04:16 15 Q. Did you do any work or analysis to  
16 determine whether any of the events identified  
17 by Dr. [REDACTED] were stale or were repetitive?

18 MR. FIGEL: Objection.

19 THE WITNESS: No, I didn't. I saw what  
04:16 20 Dr. [REDACTED] did as a justification for excluding  
21 certain announcements. As I said, there is a  
22 lot of subjective decision making by Dr. [REDACTED] as  
23 to which announcements counted, which  
24 announcements don't count.

04:16 25 It's one thing to interpret results in



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 a particular way. It's another thing to  
2 subjectively decide which observations need to  
3 be included in terms of analyzing what the  
4 results of a particular study show.

04:16 5 And I think one always needs to be  
6 careful, again, as a lot of support for this in  
7 the academic literature about subjectively  
8 including or excluding which announcements or  
9 which events you include in a particular  
04:17 10 analysis absent a principal basis for doing so.

11 BY MR. HANAUER:

12 Q. Is there an objective way to determine  
13 which news should be included in Dr. [REDACTED]  
14 analysis?

04:17 15 MR. FIGEL: Objection.

16 THE WITNESS: Well, you know, I guess one  
17 starting point is you could report results for  
18 all 514 announcements. That would be a good way  
19 to start.

04:18 20 BY MR. HANAUER:

21 Q. Do the figures on your table in  
22 Exhibit 2 to your report, do those figures  
23 include repetitive or stale news?

24 A. I don't know without looking. But,  
04:18 25 again, to say something is repetitive is not the

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 same thing as saying that it's stale.

2 And, again, that's a function of  
3 interpretation depending on the relevant facts  
4 and circumstances. Sometimes the repetition of  
04:18 5 an announcement can have a smaller or no effect  
6 because the effect of the announcement was  
7 earlier.

8 Other times you can have exactly the  
9 reverse, that a particular announcement, when  
04:19 10 it's made the first time, has a very small or no  
11 effect, but when it's made the second time has a  
12 big effect precisely because it's being  
13 repeated.

14 And, therefore, to arbitrarily exclude  
04:19 15 announcements because they've been in one's  
16 subjective judgment made at an earlier or  
17 something similar has been made at an earlier  
18 point in time is really an error. Because the  
19 fact that information is repeated doesn't tell  
04:19 20 you by itself whether that -- whether the  
21 repetition makes the information more important  
22 or less important.

23 That's just another methodological flaw  
24 in what Dr. [REDACTED] did.

04:20 25 Q. Can you please pull out Dr. [REDACTED]

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 report.

2 A. Okay. I have it.

3 Q. And look at page 29.

4 A. Okay, I have it.

04:20 5 Q. Look at footnote 67, please.

6 A. Okay. Just give me a second to look at  
7 it.

8 Okay, I've looked at it.

9 Q. And do you see how Dr. [REDACTED] writes [as  
04:20 10 read]: On May 16, 2017, Ripple announces its  
11 plan to escrow 55 billion XRP tokens. A  
12 newsroom article from May 26, 2017, again  
13 reports Ripple's plan to escrow 55 billion XRP  
14 tokens. I exclude the May 26, 2017, event from  
04:21 15 my analysis as stale?

16 A. Yes, I see that.

17 Q. Should the May 26, 2017, event  
18 referenced in that footnote, should that be  
19 considered as confounding news for the May 16th  
04:21 20 announcement?

21 A. Confounding news? I wouldn't call it  
22 confounding news.

23 Q. Would the May 26, 2017, announcement  
24 show up within the ten -- plus or minus ten-day  
04:22 25 window on Exhibit 2 to your report?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: Objection.

2 THE WITNESS: It might and it should.

3 BY MR. HANAUER:

4 Q. Why is that when you just said that the  
04:22 5 May 26th announcement would not be confounding  
6 news?

7 MR. FIGEL: Objection.

8 THE WITNESS: Because previously we were  
9 using the term to be situations where  
04:22 10 confounding news was information either -- in my  
11 report, either information that communicated  
12 information about Ripple's efforts, if there  
13 were efforts, and new information about supply  
14 and demand conditions, as well as multiple  
04:23 15 announcements within a particular event window  
16 and different event windows that you cannot  
17 exclude the possibility, have an effect on  
18 price, particularly because of the  
19 acknowledgement that XRP is trading in an  
04:23 20 efficient market.

21 So let's take this particular example  
22 of excluding 5/26. One of the things that I've  
23 written about in my own articles about event  
24 studies is the need to avoid "I know it when I  
04:23 25 see it" tests to decide what's important or not

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 important just based on your own subjective  
2 judgment, as opposed to doing the analysis  
3 yourself, looking at the price reaction and  
4 deciding whether or not the price reaction  
04:24 5 demonstrates that the announcement, in this  
6 case, the second announcement, relative to the  
7 first announcement is bigger, smaller, what --  
8 or the same.

9 That's the proper methodology to use.  
04:24 10 You don't know without looking based on an "I  
11 know it when I see it" test what the  
12 relationship is between the price effects of  
13 these two different announcements. And because  
14 what's involved is an inefficient market, there  
04:24 15 is no theory for when information is reflected  
16 in prices in an information market.

17 So it may be that some of the price  
18 reaction on the one announcement, either one of  
19 them, is a product of other information from the  
04:25 20 other announcement just not being reflected in  
21 prices on that day but on the other day or  
22 they're combined in some way. There is no way  
23 to know without actually doing the analysis and  
24 actually looking at the effect on prices or the  
04:25 25 correlation, to be more precise, using

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Dr. [REDACTED] term, as opposed to making a  
2 subjective judgment and arbitrarily including  
3 some announcements but not other announcements.

4 Again, I just think that's a basic  
04:25 5 methodological error.

6 BY MR. HANAUER:

7 Q. On Exhibit 2 you say that the events  
8 Dr. Metz included may have been confounded  
9 without actually doing any analysis to determine  
04:26 10 the impact of potentially confounding  
11 announcements?

12 MR. FIGEL: Objection.

13 THE WITNESS: I wouldn't say there is no  
14 analysis. The announcement is the proximity in  
04:26 15 time and the significance of the proximity in  
16 time, particularly in a situation where you're  
17 dealing with an inefficient market when there is  
18 no theory for what time period information is  
19 reflected in prices, when that occurs and  
04:26 20 whether it occurs without bias, and if there is  
21 bias when the bias disappears.

22 That's the point of Exhibit 2.

23 BY MR. HANAUER:

24 Q. Did you do any analysis or testing to  
04:26 25 make a quantitative determination on the impact

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 of any particular piece of potentially  
2 confounding news?

3 MR. FIGEL: Objection.

4 THE WITNESS: You know, again, I've tried to  
04:27 5 make this point several times. It's very hard  
6 to do really and sometimes impossible to do in  
7 an inefficient market because you don't know  
8 when the price effects of any particular  
9 announcement, when they are reflected in prices  
04:27 10 or when they're fully reflected in prices, when  
11 they're reflected in prices without bias.

12 If you have an efficient market, you  
13 have a premise for stating that for certain  
14 types of information there is empirical support  
04:27 15 for those types of announcements in an efficient  
16 market, what the speed of price adjustment is to  
17 new information.

18 In fact, that is one of the key  
19 provisions in the Cammer factors that we  
04:28 20 discussed earlier.

21 But with an inefficient market you  
22 don't have a theory of the speed of price  
23 adjustment to new information. And that's why  
24 the existence of multiple announcements in a  
04:28 25 particular window is particularly important in

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 creating, at a minimum, caution in attributing a  
2 correlation between a price -- between a  
3 particular announcement and a price movement  
4 when there are other announcements in the same  
04:28 5 window as the announcement that, in this case,  
6 Dr. [REDACTED] is attributing correlation to. And  
7 that's what Exhibit 2 is meant to illustrate.

8 BY MR. HANAUER:

9 Q. Are you offering any opinion as to the  
04:29 10 quantitative impact of any potentially  
11 confounding news?

12 MR. FIGEL: Objection.

13 THE WITNESS: I would say no for the reasons  
14 that I just described.

04:29 15 BY MR. HANAUER:

16 Q. How many -- besides the May 26, 2017,  
17 example, how many other news repetitions are  
18 included in your analysis on Exhibit 2 to your  
19 report?

04:29 20 MR. FIGEL: Objection.

21 THE WITNESS: Well, first of all, I'm not  
22 sure about the premise of your question.

23 When you said that the May 26th  
24 announcement is included -- it might be -- but I  
04:30 25 don't have a way of knowing that for sure as I



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 sit here --

2 BY MR. HANAUER:

3 Q. Well, you included all of Dr. [REDACTED]

4 514 announcements, right?

04:30 5 MR. FIGEL: Just to -- just so the record is  
6 clear, Dr. Fischel, Professor Fischel, did you  
7 finish your answer before Mr. Hanauer asked a  
8 clarifying question?

9 THE WITNESS: No. I was trying to finish my  
04:30 10 answer.

11 MR. FIGEL: Do you want the court reporter to  
12 read back the question on where you were?

13 THE WITNESS: No, I remember the question.

14 What I was about to say is, as I said,  
04:30 15 you might be right in what you said about the  
16 May 26th announcement. But I don't have the --  
17 I have the number of other announcements within  
18 the same windows as what's reflected in  
19 Exhibit 2, but I don't have the list of  
04:30 20 announcements themselves in front of me.

21 So I can tell you what Exhibit 2 says,  
22 but I cannot say with certainty which specific  
23 announcements are included because I don't have  
24 them in front of me.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Do you know how many repetitive or  
3 stale announcements are included on Exhibit 2?

4 A. That's what I was trying to answer.

04:31 5 I don't -- first of all, a repetitive  
6 announcement is not the same as a stale  
7 announcement for reasons that I've said several  
8 times. A repetitive announcement may have a  
9 much bigger effect than the initial  
04:31 10 announcement.

11 So to assume that they're stale and  
12 they have no effect and you can ignore them,  
13 that's a fundamental error in an event study  
14 analysis.

04:31 15 So let me just start there.

16 Apart from that, I don't know which  
17 announcements you're considering to be  
18 repetitive or stale; so, therefore, I do not  
19 know how many of whatever you're considering to  
04:32 20 be repetitive or stale, even for the moment  
21 ignoring the error in equating repetitive with  
22 stale, how many of what you are defining in a  
23 particular category, how many of those  
24 announcements are included in Exhibit 2.

04:32 25 Q. Did you do any work to determine

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 whether -- strike that.

2 Did you do any work to determine the  
3 amount, if any, of repetitive or stale events  
4 included in Exhibit 2?

04:32 5 MR. FIGEL: Objection.

6 THE WITNESS: I would say no because that  
7 would not be relevant for purposes of the  
8 analysis that I did in Exhibit 2.

9 BY MR. HANAUER:

04:33 10 Q. So the title of Exhibit 2 is [as read]:  
11 Event days analyzed in Dr. [REDACTED] select  
12 categories test may be confounded by other  
13 announcements on or near the event day.

14 A. That's right.

04:33 15 Q. And that's your opinion?

16 A. That's right, particularly in the  
17 context of identifying characteristics of  
18 inefficient markets and the implications of what  
19 an inefficient market means.

04:33 20 Q. Are you offering an opinion that goes a  
21 step further than that, that the events analyzed  
22 in Dr. [REDACTED] select categories' test are  
23 confounded by other announcements?

24 MR. FIGEL: Objection.

04:34 25 THE WITNESS: I think what I've said multiple

210

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 times is in inefficient markets when there's no  
2 theory of when information is reflected in  
3 price, it is impossible to know, if you have  
4 multiple announcements in a particular time  
04:34 5 period, what price reactions can be confidently  
6 attributed to one announcement as compared to  
7 both announcements or even compared to neither  
8 announcement. That's the point.

9 BY MR. HANAUER:

04:35 10 Q. So do you have any specific examples of  
11 news events from Dr. [REDACTED] analysis that were  
12 confounded on the same day with other news?

13 A. I'd have to check. That's a good  
14 question. I'd have to check to be sure.

04:35 15 I don't know --

16 Q. You don't know --

17 A. I don't know without checking.

18 I mean, it's in the data, but I -- from  
19 memory, I don't remember.

04:35 20 Q. So on Exhibit 2 to your report, can we  
21 look at row number one.

22 A. I'm sorry, this is [REDACTED].

23 Okay, I have it.

24 Q. And how many days are in the windows  
04:36 25 reflected in row number one?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1       A.     Ten days, plus or minus, from the event  
2 day.

3       Q.     So is that 21 days total?

4       A.     Yes, that would be 21 days total.

04:36 5       Q.     And what is the fourth row, the row  
6 titled Average? What does that represent?

7       A.     That means if you look at all of the  
8 event days and look at all of the other  
9 announcements within that event window and you  
04:37 10 average them all from, again, a minimum of zero  
11 to a maximum of 14 with a median of 4, you get  
12 an average of 5.

13       Q.     And from Exhibit 2, can we tell if  
14 those average of five other announcements are in  
04:37 15 the first ten days of the 21-day window?

16       A.     No, you can't.

17       Q.     Do you know -- can you tell how many of  
18 the average of five events are on the last ten  
19 days of the 21-day window?

04:38 20       A.     I mean, you could by checking, but you  
21 can't tell just looking at this exhibit.

22       Q.     Is it fair to say that to reach the  
23 conclusion from Exhibit 2 to your report, that  
24 event days analyzed in Dr. [REDACTED] category may  
04:38 25 be confounded by other announcements, that to

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 reach that conclusion, it doesn't matter if the  
2 other announcements are before, on, or after the  
3 event day analyzed by Dr. [REDACTED]?

4 MR. FIGEL: Objection.

04:38 5 THE WITNESS: I don't know if I'd say it  
6 doesn't matter. Although, one of the articles,  
7 I actually discuss it in my report, on the  
8 existence or lack of existence of an efficient  
9 market, does exactly what is in this exhibit of  
04:39 10 looking at arbitrage opportunities both before  
11 and after particular events.

12 So there's support in the academic  
13 literature for analyzing the issue the way I  
14 did. But you -- on the exhibit itself, you  
04:39 15 cannot tell whether the announcements are before  
16 or after, or most before or most after.

17 BY MR. HANAUER:

18 Q. Does it affect your analysis?

19 A. For this purpose, no, it does not  
04:39 20 affect my analysis.

21 Q. Does Exhibit 2 to your report  
22 distinguish between announcements in Dr. [REDACTED]  
23 select categories on one hand and announcements  
24 in Dr. [REDACTED] other categories on the other?

04:40 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 THE WITNESS: You know, you asked me that  
2 before, and I said I'd have to check.

3 I think most of the -- if I remember  
4 correctly, most of the other announcements  
04:40 5 around the event day are not in Dr. [REDACTED]  
6 select categories, but I don't remember if all  
7 of them are.

8 BY MR. HANAUER:

9 Q. Does it matter for your analysis?

04:40 10 A. No.

11 Q. Did you test if any of the news  
12 announcements outside of the five categories  
13 analyzed by Dr. [REDACTED] were associated with  
14 statistically significant price returns?

04:41 15 MR. FIGEL: Objection.

16 THE WITNESS: Did I specifically test that?  
17 No, I don't think I did.

18 BY MR. HANAUER:

19 Q. Did you test how quickly the effect of  
04:41 20 news announcements were incorporated into XRP's  
21 price?

22 MR. FIGEL: Objection.

23 THE WITNESS: I mean, that's -- one of the  
24 characteristics of an inefficient market is you  
04:41 25 don't really have a theoretical basis for

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 analyzing that question.

2 BY MR. HANAUER:

3 Q. So the answer is no?

4 A. There's no test that you can conduct  
04:41 5 that can definitively answer that question if  
6 it's an inefficient market.

7 You can have shorter event windows,  
8 larger event windows, there's tradeoffs with  
9 respect to both of those strategies. And the  
04:42 10 reason why you have different event windows is  
11 because you can't answer the question  
12 definitively and there's no theoretical basis  
13 for doing so.

14 That's the reason to have different  
04:42 15 event windows.

16 Q. When you perform an event study, do you  
17 always look for confounding news and make  
18 adjustments to account for confounding news?

19 MR. FIGEL: Objection.

04:42 20 THE WITNESS: Again, every case depends on  
21 the relevant facts and circumstances. But when  
22 you're dealing with an efficient market, again,  
23 one of the definitions of an efficient market is  
24 publicly available information is reflected  
04:43 25 quickly and without bias in prices. And there



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 has been a number of studies of how quick that  
2 is, whether or not there's bias.

3 So there is a framework in the academic  
4 literature for what the logical length of time  
04:43 5 to look at to determine the effect of a piece of  
6 publicly available information, whether from an  
7 announcement or otherwise.

8 And that doesn't exist in inefficient  
9 markets. And that's why there are these  
04:43 10 different trading windows -- trading event  
11 windows in the study that is -- I discuss in my  
12 report about arbitrage opportunities before and  
13 after particular events demonstrating market  
14 insufficiently with cryptocurrencies.

04:44 15 BY MR. HANAUER:

16 Q. That's the Joo paper?

17 A. No. I think that's the -- I just want  
18 to look just to make sure that what I just said  
19 is accurate. But it's not the Joo paper, I  
04:44 20 don't believe.

21 Q. Would it be the Feng paper then?

22 A. Yeah, it's footnote 71.

23 MR. HANAUER: Do you mind if we take a quick  
24 break?

04:44 25 MR. FIGEL: Not at all.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. HANAUER: Off the record, please.

2 THE VIDEOGRAPHER: We are going off the  
3 record. The time is 4:45 p.m.

4 (Whereupon, a recess was had at  
05:11 5 4:45 p.m., after which the  
6 deposition was resumed at  
7 5:11 p.m. as follows:)

8 THE VIDEOGRAPHER: We are back on the record.  
9 The time is 5:12 p.m.

05:11 10 You may proceed.

11 BY MR. HANAUER:

12 Q. Professor Fischel, in other of your  
13 testifying expert engagements, have you prepared  
14 reports that test the market efficiency for a  
05:11 15 specific security?

16 A. Certainly I analyzed that question.  
17 I'm trying to remember if any of my reports on  
18 that issue were ever filed.

19 MR. HANAUER: Exhibit 12.

05:12 20 THE WITNESS: And I'd have to check.  
21 Certainly, I filed a number of reports concluding  
22 that markets were efficient.

23 (Whereupon, Deposition  
24 Exhibit DF-12 was marked for  
05:12 25 identification.)

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Is Exhibit DF-12 a copy of the expert  
3 report you submitted in a case called Shah  
4 versus Zimmer Biomet Holdings, Inc., in the  
05:13 5 Northern District of Indiana?

6 A. Yes, it appears to be.

7 Q. And in the Shah case, did you test the  
8 market efficiency of a specific security?

9 A. You know, I actually don't remember  
05:13 10 very well, but let me just look and I can answer  
11 that question.

12 Yes, I did.

13 Q. And was one of the ways you tested for  
14 market efficiency in the Shah case was by  
05:14 15 performing an event study?

16 A. Yes.

17 Q. In this case did you perform an event  
18 study to test the efficiency of the XRP trading  
19 markets?

05:14 20 A. No, for the reasons that I've stated.

21 Q. Did you perform any work or analysis to  
22 assess XRP price movement independent of  
23 Bitcoin?

24 MR. FIGEL: Objection.

05:15 25 THE WITNESS: I would say no unless one of

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Dr. [REDACTED] different 20 regression  
2 specifications, you might be able to draw  
3 inferences about that question by looking at his  
4 different regressions and the explanatory power  
05:15 5 of different independent variables.

6 But in terms of any independent  
7 analysis, no, I didn't.

8 BY MR. HANAUER:

9 Q. Did you perform any work or analysis to  
05:16 10 assess XRP price movement independent of any  
11 other digital asset other than Bitcoin?

12 MR. FIGEL: Objection.

13 THE WITNESS: Really, the same answer as I  
14 just gave.

05:16 15 BY MR. HANAUER:

16 Q. When you're defining market efficiency,  
17 is it a black-and-white issue where markets can  
18 only be efficient or not efficient?

19 MR. FIGEL: Objection.

05:16 20 THE WITNESS: I think it depends. Define for  
21 what purpose. For purposes of interpreting  
22 price movements in an event study, I think  
23 market efficiency and satisfying the conditions  
24 for semi-strong market efficiency, I think  
05:17 25 that's quite important.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 I would say more generally market  
2 efficiency in a pure economic sense without  
3 consideration of the context of how market  
4 efficiency is either being used or not used,  
05:17 5 it's probably more accurate to say that markets,  
6 depending on which market you're talking about,  
7 it's probably more accurate to talk about a  
8 continuum of market efficiency to complete  
9 inefficiency to somewhere in between.

05:17 10 BY MR. HANAUER:

11 Q. So that continuum you just discussed,  
12 does that apply to market efficiency as it  
13 relates to event studies?

14 A. Not so much. I mean, that -- that's  
05:17 15 what I was describing a second ago, that if you  
16 want to attribute correlation, let alone  
17 causation, between a particular event and a  
18 particular price movement, you need some  
19 empirical basis, some theoretical and empirical  
05:18 20 basis generally from existing academic  
21 literature, but also tests that you yourself can  
22 perform, that gives you a basis for concluding  
23 that particular events or announcements can be  
24 confidently associated with or correlated with  
05:19 25 particular price movements.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 Q. For -- as they relate to -- as it  
2 relates to event studies, what's the difference,  
3 if any, between a market being less efficient  
4 and a market being not efficient?

05:19 5 A. Not very much in terms of the way event  
6 studies are usually used for purposes of  
7 analyzing the relationship between public  
8 announcements or events and price movements.

9 Q. So are you saying that -- can an event  
05:19 10 study be performed to accurately test the impact  
11 between news announcements and prices when the  
12 market is less efficient but not not efficient?

13 MR. FIGEL: Objection.

14 THE WITNESS: Well, again, I'm trying to  
05:20 15 distinguish between how event studies can be  
16 used in ways that you have confidence about the  
17 results versus how they could potentially be  
18 used.

19 So, for example, if you try and do an  
05:20 20 event study with an asset that's never traded,  
21 then it would be -- that's really one end of the  
22 spectrum of inefficiency, but then you get all  
23 kinds of intermediate cases that can exist where  
24 you still cannot confidently establish  
05:21 25 correlation between particular events and

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 particular price movements, again, depending on  
2 the event and depending on the price movement  
3 because there may be things that you know from  
4 other sources that allow you to -- in  
05:21 5 particular, the situations reach inferences  
6 whether or not the market is efficient.

7 And that's -- that's the logic in these  
8 academic studies of having all kinds of  
9 different windows, short windows, medium  
05:21 10 windows, long windows. But, again, there's  
11 tradeoffs because let's say with a market that  
12 is not efficient but it's not like the market  
13 where nothing ever trades, and so you don't  
14 really have a basis for knowing how quickly  
05:22 15 prices react to new publicly available  
16 information.

17 And the way you deal with that, the way  
18 a number of academic studies do, is you extend  
19 the event window. So instead of one day, you  
05:22 20 look at ten days or seven days.

21 And that's a way to try and compensate  
22 for the fact that you don't really have a basis  
23 or a theory for why the effect should be  
24 immediate. But the problem when you do that is  
05:22 25 you introduce the possibility that other things

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 are occurring in the seven days or the ten days  
2 that are also having an effect other than what  
3 it is that you're measuring.

4 And it's very hard to basically solve  
05:23 5 both things at the same time, to expand event  
6 windows before and after to try and capture the  
7 fact that you don't know how quickly information  
8 is being reflected in prices and at the same  
9 time not introduce the possibility that you're  
05:23 10 also taking -- now taking into account -- or  
11 possibly taking into account the effect of other  
12 events that may have an influence on price but  
13 are not the events that you're trying to  
14 measure.

05:23 15 So that's the basic reality. And  
16 that -- lengthening those event windows might be  
17 the best you can do, but then you have to  
18 interpret the results in the context of the  
19 tradeoffs that exist and the limitations that  
05:24 20 occur when you're in that position, something  
21 that Dr. [REDACTED] did not do.

22 So, you know, I guess that's what I  
23 would say.

24 BY MR. HANAUER:

05:24 25 Q. So is it Dr. [REDACTED] opinion that the



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 XRP markets are less efficient than the stock  
2 market or is it that they're not efficient at  
3 all?

4 MR. FIGEL: Objection.

05:24 5 THE WITNESS: Well, you have to ask him. I  
6 assume he would not say that they're not  
7 efficient at all; because if they were not  
8 efficient at all, then price movements would  
9 just be completely random in relation to  
05:25 10 announcements or events. And I assume he  
11 doesn't believe that. So if --

12 BY MR. HANAUER:

13 Q. Do you believe that?

14 A. Do I believe that the XRP market was  
05:25 15 completely inefficient, meaning there's no  
16 relationship between announcements and price  
17 movements? No, I don't believe that.

18 Q. Did you do any work in this case to  
19 determine whether the XRP trading markets were  
05:25 20 less efficient as opposed to not efficient?

21 MR. FIGEL: Objection.

22 THE WITNESS: You know, I reviewed a lot of  
23 academic literature, peer-reviewed literature on  
24 this question, as well as looking at Dr. [REDACTED]  
05:26 25 own analysis. You know, you're coming up with

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 categories that are not really typical.

2 But I wouldn't say that I have an  
3 opinion or there's a finding in the academic  
4 literature that there's no connection of any  
05:26 5 kind between announcements and price movements,  
6 no correlation ever. I wouldn't say that no  
7 correlation ever exists because that would be  
8 too strong.

9 BY MR. HANAUER:

05:26 10 Q. Are you offering the opinion that the  
11 XRP trading markets are not sufficiently  
12 efficient to perform an event study that  
13 accurately measures the impact of news  
14 announcements on price?

05:26 15 MR. FIGEL: Objection.

16 THE WITNESS: Yes. I'm saying one of the  
17 characteristics of an inefficient market, which  
18 is what the academic literature finds and what  
19 Dr. [REDACTED] concedes, is it has implications for  
05:27 20 how confident you can be, that you're accurately  
21 measuring the effect or the correlation between  
22 particular events or announcements and  
23 particular price movements. That's the meaning  
24 of an inefficient market.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Does Dr. [REDACTED] concede that XRP does not  
3 trade in an efficient market?

4 MR. FIGEL: Objection.

05:27 5 THE WITNESS: Well, you'd have to ask him.  
6 But when he reports the findings of academic  
7 studies which conclude that when he talks about  
8 the existence of serial correlation and comes up  
9 with attempted statistical tests to try and  
05:27 10 correct for the existence of serial correlation,  
11 which is itself a violation of a random walk and  
12 even weak form of efficient markets, so I would  
13 say, yes, he does, by the literature that he  
14 cites and the tests that he performs, and his  
05:28 15 analysis of the nature of price movements in  
16 cryptocurrency markets.

17 So yes, I would say he does acknowledge  
18 the general finding, as far as I'm aware, in  
19 every academic study that considers the question  
05:28 20 that cryptocurrency markets, in general, and  
21 XRP, in particular, do not exhibit the  
22 characteristics of an efficient market.

23 BY MR. HANAUER:

24 Q. Does he -- does Dr. [REDACTED] say anywhere  
05:28 25 in his report that XRP does not trade in an

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 efficient market?

2 A. Does he use those words? I'd have to  
3 look but the characteristics of price movements  
4 that he describes and the empirical tests that  
05:29 5 he does and the literature that he cites all  
6 demonstrate a recognition on his part that, from  
7 his own analysis of price movements as well as  
8 the academic literature that he relies on, that  
9 cryptocurrency markets, in general, and XRP, in  
05:29 10 particular, do not -- that neither of those --  
11 or XRP as an example of cryptocurrency markets  
12 trade in efficient market.

13 In fact, as I mentioned, the Joo  
14 article, if I remember correctly concludes that  
05:29 15 XRP is one of the least efficient cryptocurrency  
16 markets.

17 BY MR. HANAUER:

18 Q. Does the Joo article say that the XRP  
19 markets are insufficiently efficient such that  
05:30 20 you can't accurately measure the impact of news  
21 announcements on XRP prices?

22 MR. FIGEL: Objection.

23 THE WITNESS: Well, again, I don't recall  
24 exactly what they say. But what the -- the  
05:30 25 purpose of the article is to do a test of market

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 efficiency, to conclude one way or the other  
2 whether cryptocurrency markets, and XRP in  
3 particular, trades in an efficient market. And  
4 the conclusion of the article is that they  
05:30 5 don't. Crypto markets generally don't trade in  
6 an efficient market, and crypto -- and XRP  
7 specifically does not trade in an efficient  
8 market.

9 In fact, it's farther away from an  
05:30 10 efficient market than other cryptocurrencies.

11 BY MR. HANAUER:

12 Q. In an efficient market are stock price  
13 increases associated with positive relevant news  
14 announcements?

05:31 15 MR. FIGEL: Objection.

16 THE WITNESS: Not necessarily.

17 BY MR. HANAUER:

18 Q. When an -- when the market is  
19 efficient, when are stock price increases  
05:31 20 generally -- strike that.

21 In an efficient market, are stock price  
22 increases generally associated with positive  
23 relevant news announcements?

24 MR. FIGEL: Objection.

05:31 25 THE WITNESS: Well, statistically significant

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 price increases are, by definition, positive.  
2 Whether they are associated with positive  
3 announcements generally is too vague of a  
4 question. You need a definition of what a  
05:31 5 positive announcement is. Is it the language is  
6 positive? That certainly is not the case.  
7 There are many positive-sounding announcements  
8 that have big negative stock price consequences.

9 So it just depends. You have to look  
05:32 10 at the actual data. And as I said in my answers  
11 a few minutes ago, you can't just rely on a "I  
12 know it when I see it" test.

13 You have to actually look at what  
14 happens with a particular announcement and what  
05:32 15 the price reaction is in relation to that  
16 announcement.

17 BY MR. HANAUER:

18 Q. In an efficient market, does the price  
19 of a security react to news that is not  
05:32 20 material?

21 MR. FIGEL: Objection.

22 THE WITNESS: The price reflects all publicly  
23 available information. So in that sense, the  
24 answer is yes.

05:33 25 Whether that reaction is statistically

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 significant, that's a different question, and  
2 whether you can exclude the possibility that the  
3 price reaction is attributable to chance alone,  
4 that's also a different question.

05:33 5 But the definition of a semi-strong  
6 efficient market is that prices react to all  
7 publicly available information, whether material  
8 or not, it's just you can't tell whether the  
9 movement also is random and, therefore,  
05:33 10 something that you can't reject the hypothesis  
11 that the movement is attributable to chance  
12 alone.

13 BY MR. HANAUER:

14 Q. When did securities markets become  
05:33 15 sufficiently efficient for event studies to  
16 accurately measure the impact of news  
17 announcements on stock prices?

18 MR. FIGEL: Objection.

19 THE WITNESS: Well, that's a pretty broad  
05:34 20 question. You know, I'm not sure there is a  
21 clear answer to it in terms of a dividing line  
22 chronologically.

23 You know, a lot of the famous articles  
24 about market efficiency I think started  
05:34 25 appearing in the '70s and then, you know,

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 continued since then.

2 BY MR. HANAUER:

3 Q. Were securities markets sufficiently  
4 efficient for event studies to accurately  
05:34 5 measure the impact of news announcements on  
6 stock prices before the advent of the internet?

7 MR. FIGEL: Objection.

8 THE WITNESS: I think many of the main  
9 studies of market efficiency on which event  
05:35 10 studies relied occurred before the advent of the  
11 internet.

12 BY MR. HANAUER:

13 Q. Same question but instead of internet,  
14 what if I were to -- well, I'll just ask the  
05:35 15 question.

16 Were securities markets sufficiently  
17 efficient for event studies to measure the  
18 impact of news announcements on stock prices  
19 before CNBC or Bloomberg were widely available?

05:35 20 MR. FIGEL: Objection.

21 THE WITNESS: Well, part of my problem is I  
22 don't know when CNBC and Bloomberg were widely  
23 available. But in terms of the academic  
24 literature on the efficiency of prices, I  
05:35 25 don't -- I haven't reviewed them recently with

231



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 that -- or ever with that question in mind, you  
2 know. So I -- I would think the answer to that  
3 is yes, but I would have to investigate it a  
4 little bit further to -- I don't know if  
05:36 5 Bloomberg was available in -- well, I guess  
6 Bloomberg is because of Bloomberg. I don't  
7 know. He's -- I don't know how old he is, so I  
8 don't know the answer to your question.

9 I would say probably, but I'd want to  
05:36 10 investigate more, for sure.

11 BY MR. HANAUER:

12 Q. Are the cryptocurrency markets more or  
13 less efficient over the past five years than the  
14 stock market was in the 1980s?

05:37 15 MR. FIGEL: Objection.

16 THE WITNESS: You know, it's an odd  
17 comparison.

18 MR. FLUMENBAUM: It's way beyond the scope,  
19 too. I mean, I don't understand this line of  
05:37 20 questioning. It has nothing to do with his  
21 report.

22 MR. HANAUER: Anything else, Counsel?

23 MR. FLUMENBAUM: No.

24 THE WITNESS: I started to say, it's sort of  
05:37 25 a very odd question of comparing one against the

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 other in different markets with different types  
2 of claims. I don't know if that specific  
3 question has ever been studied.

4 BY MR. HANAUER:

05:38 5 Q. Have you ever studied that question?

6 MR. FIGEL: Objection.

7 THE WITNESS: No. I would say the one thing  
8 that I have done is used event studies using  
9 data from the 1980s based on literature,  
05:38 10 academic literature on the efficiency of markets  
11 at that time. And I don't think there's a  
12 similar academic literature about  
13 cryptocurrencies in the last five years. So I  
14 haven't studied that question. I don't want to  
05:38 15 express an opinion about that question.

16 But to the extent I have a reaction to  
17 the question, it's what I just said.

18 BY MR. HANAUER:

19 Q. Going back to the Cammer factors that  
05:39 20 you referenced earlier today, what's the  
21 methodology for determining whether a market is  
22 efficient or not when certain of the Cammer  
23 factors support efficiency but certain don't?

24 MR. FIGEL: Objection.

05:39 25 THE WITNESS: Well, that's partly a legal

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 question again, and I'm not expressing a legal  
2 opinion. But I think there is a general  
3 understanding that certain factors are more  
4 important than others.

05:39 5 BY MR. HANAUER:

6 Q. And which are the most important  
7 factors?

8 A. Well, again, it might, you know, depend  
9 on the relevant facts and circumstances that are  
05:39 10 at issue. But, generally, it's the extent that  
11 one can say that the -- that price reactions to  
12 particular events occur quickly and without  
13 bias. I think that's generally regarded as  
14 probably the most important factor; certainly  
05:40 15 the most important economic factor. And I -- so  
16 that's what I would say.

17 Q. So beyond the Cammer factors to  
18 determine the efficiency of a market for a  
19 digital -- or I'm sorry.

05:40 20 To determine the efficiency of a market  
21 for a particular asset, can you also  
22 appropriately consider a company's  
23 capitalization?

24 MR. FIGEL: Objection.

05:40 25 THE WITNESS: Yes, I think you can

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 appropriately consider a company's  
2 capitalization.

3 BY MR. HANAUER:

4 Q. What about bid/ask spread?

05:41 5 A. That's another factor that has  
6 sometimes been considered certainly by courts.

7 Q. What about percentage --

8 A. And bid/ask spread is a measure of  
9 liquidity, and liquidity can be correlated with  
05:41 10 the speed of price adjustment to new  
11 information.

12 Q. Are you offering any opinion as to the  
13 liquidity of the XRP markets?

14 A. No, I'm not.

05:41 15 Q. Did you perform any work or analysis to  
16 determine the period of time by which  
17 information is fully incorporated into XRP  
18 prices without bias?

19 A. Well, that's part of the problem; you  
05:42 20 don't know that. That's, again, one of the  
21 characteristics of the inefficient market. I'm  
22 just going to repeat again what I just said.  
23 That's the logic of using different event  
24 windows because you don't know, so you increase  
05:42 25 the event window hoping that the effect of a

## CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

1 particular or a -- that a particular event is  
2 correlated with a price movement within a  
3 certain period of time, so you have short event  
4 windows and then longer event windows.

05:42 5 But, first of all, you don't even know  
6 with the longer event window that that fully  
7 captures the -- what the price reaction that's  
8 correlated with a particular event.

9 But, again, even if you could solve  
05:43 10 that problem, you introduce another problem,  
11 which is you start introducing unrelated events.  
12 And, again, that just creates another problem in  
13 figuring out how much of a price reaction is  
14 correlated with a particular disclosure or  
05:43 15 event.

16 Q. Did you perform a Cammer analysis in  
17 this case?

18 A. I think I answered that question a  
19 number of hours ago. I suggested that it would  
05:43 20 be interesting to do, in some sense knowing the  
21 answer, but I'm not sure whether the people that  
22 I was working with actually implemented the  
23 analysis as opposed to just something we  
24 discussed.

05:44 25 Q. Are you offering the opinion then on

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 the outcome of any Cammer analysis as it relates  
2 to XRP?

3 A. I do not --

4 MR. FLUMENBAUM: Objection.

05:44 5 THE WITNESS: I wouldn't say I'm offering an  
6 opinion about it. I haven't offered an opinion  
7 about it. But I think the implication of the  
8 conclusion and all of the academic studies as  
9 well as in Dr. [REDACTED] report that XRP does not  
05:44 10 trade in an inefficient market means that XRP  
11 would not satisfy the Cammer factors.

12 BY MR. HANAUER:

13 Q. How does XRP's daily trading volume  
14 compare to that of smaller stocks on the S&P 500  
05:45 15 index?

16 MR. FIGEL: Objection.

17 MR. FLUMENBAUM: Objection.

18 THE WITNESS: I don't know. I would have to  
19 look.

05:45 20 BY MR. HANAUER:

21 Q. Is XRP covered by investment  
22 professionals?

23 MR. FIGEL: Objection.

24 MR. FLUMENBAUM: Objection.

05:45 25 THE WITNESS: I'm sure there are some

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 investment professionals who try and follow  
2 price movements of XRP.

3 BY MR. HANAUER:

4 Q. Do you know the extent of coverage of  
05:45 5 XRP by investment professionals?

6 MR. FIGEL: Objection.

7 THE WITNESS: I haven't specifically studied  
8 that question.

9 BY MR. HANAUER:

05:45 10 Q. Are there market makers that make a  
11 market in XRP?

12 MR. FLUMENBAUM: Objection.

13 THE WITNESS: I haven't specifically studied  
14 that question either.

05:46 15 BY MR. HANAUER:

16 Q. Are you aware of the allegation in the  
17 amended complaint that Ripple paid market makers  
18 to make a market in XRP?

19 MR. FLUMENBAUM: Objection.

05:46 20 THE WITNESS: You'd have to show it to me.

21 BY MR. HANAUER:

22 Q. How does Ripple's capitalization  
23 compare to smaller stocks on the -- smaller  
24 companies included in the S&P 500 index?

05:47 25 MR. FIGEL: Objection.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FLUMENBAUM: Objection.

2 THE WITNESS: I haven't studied that  
3 question.

4 BY MR. HANAUER:

05:47 5 Q. Have you studied the bid/ask spread in  
6 the XRP markets?

7 MR. FIGEL: Objection.

8 THE WITNESS: No, I haven't.

9 BY MR. HANAUER:

05:47 10 Q. Have you studied the percentage of XRP  
11 tokens held by the public?

12 MR. FIGEL: Objection.

13 THE WITNESS: No, I haven't.

14 BY MR. HANAUER:

05:48 15 Q. Are you able to provide specific  
16 examples of Ripple news announcements that you  
17 think were not fully incorporated into XRP's  
18 price within three days?

19 MR. FIGEL: Objection.

05:48 20 MR. FLUMENBAUM: Objection.

21 THE WITNESS: You know, it's the same problem  
22 because the stock -- not the stock, excuse me --  
23 because XRP does not trade in an efficient  
24 market. There is no way to know whether the  
05:48 25 price effect is fully incorporated within three



**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 days or any other time period.

2 And by the way, that is why the price  
3 reaction test is generally considered to be the  
4 most important test that determines whether a  
05:49 5 stock trades in an efficient market and the  
6 Cammer factors as well.

7 BY MR. HANAUER:

8 Q. Isn't that sort of circular, that  
9 you're saying you need to establish in the  
05:49 10 Cammer factors a cause-effect relationship  
11 between news announcements and stock price  
12 movement, but that you can't make that  
13 determination until you establish the Cammer  
14 factors?

05:49 15 MR. FIGEL: Objection.

16 THE WITNESS: It's not circular because one  
17 of the things that the academic studies do is,  
18 you know, for example, look for serial  
19 correlation, look for arbitrage opportunities,  
05:50 20 things that would not exist if prices fully  
21 reflected the effects of particular  
22 announcements or other types of publicly  
23 available information. If that were true, then  
24 there would be no arbitrage opportunities, there  
05:50 25 wouldn't be serial correlation, you wouldn't

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 need to have these different studies looking at  
2 different event windows, et cetera.

3           So, you know, that's why the Cammer  
4 factors are a way to look at a series of  
05:51 5 different factors to determine whether, in the  
6 case of the Cammer factors, a stock or other  
7 security trades in an efficient market.

8           But with respect to cryptocurrencies  
9 and XRP, based on the academic literature, based  
05:51 10 on Dr. [REDACTED] own findings, you already know it  
11 doesn't trade -- XRP doesn't trade in an  
12 efficient market and, therefore, you know it  
13 wouldn't satisfy the Cammer factors, which are  
14 intended to be a test of whether a particular  
05:51 15 security or financial asset trades in an  
16 efficient market.

17 BY MR. HANAUER:

18           Q. Did Ripple have policies that  
19 contemplated the public announcements about  
05:52 20 Ripple or the XRP protocol could affect the  
21 decision to buy or sell XRP?

22           MR. FIGEL: Objection.

23           THE WITNESS: I don't know.

24 BY MR. HANAUER:

05:52 25           Q. Did Ripple have policies that

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 contemplated that certain announcements by  
2 Ripple could significantly affect the trading  
3 price of XRP?

4 MR. FIGEL: Objection.

05:52 5 MR. FLUMENBAUM: Objection. He's not a fact  
6 witness. He's not testifying --

7 MR. HANAUER: Speaking objection, Counsel.

8 MR. FLUMENBAUM: You're way beyond what  
9 you're allowed to ask him --

05:52 10 MR. HANAUER: Speaking objection, Counsel.

11 MR. FLUMENBAUM: -- as an expert.

12 MR. HANAUER: Can you reread the question,  
13 please?

14 (Whereupon, the record was read  
02:04 15 as requested.)

16 MR. HANAUER: I'll restate it.

17 BY MR. HANAUER:

18 Q. Did Ripple have policies that  
19 contemplated that certain announcements by  
05:53 20 Ripple could significantly affect the trading  
21 price of XRP?

22 MR. FIGEL: Objection.

23 MR. FLUMENBAUM: Objection.

24 THE WITNESS: I don't know.

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 BY MR. HANAUER:

2 Q. Did Ripple advise its employees that  
3 Ripple's news announcements become generally  
4 known two days following an announcement?

05:53 5 MR. FIGEL: Objection.

6 MR. FLUMENBAUM: Objection, improper  
7 question.

8 THE WITNESS: I don't know.

9 BY MR. HANAUER:

05:53 10 Q. Have you reviewed any of Ripple's  
11 internal codes of conduct?

12 A. No.

13 Q. Have you reviewed any of Ripple's  
14 insider trading policies?

05:54 15 A. No.

16 Q. Are you aware whether or not Ripple has  
17 insider trading policies or ever did?

18 MR. FLUMENBAUM: Objection.

19 THE WITNESS: I don't recall one way or the  
05:54 20 other.

21 MR. HANAUER: One moment please while I  
22 confirm with counsel.

23 MR. FIGEL: Could we also get a time check?

24 THE VIDEOGRAPHER: Yeah, we've been on the  
05:54 25 record a little over six hours.

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. FIGEL: So we have one hour left to get  
2 to seven?

3 THE VIDEOGRAPHER: I believe so, yeah. A  
4 little over six hours.

05:54 5 MR. HANAUER: Let's go off the record and  
6 take a very short break, please.

7 THE VIDEOGRAPHER: We are going off the  
8 record. The time is 5:55 p.m.

9 (Whereupon, a recess was had at  
05:58 10 5:55 p.m., after which the  
11 deposition was resumed at  
12 5:58 p.m. as follows:)

13 THE VIDEOGRAPHER: We are back on the record.  
14 The time is 5:58 p.m.

05:58 15 You may proceed.

16 MR. HANAUER: Thank you, Professor Fischel.  
17 The SEC has no further questions at this time.

18 MR. FIGEL: No question from Ripple Labs.

19 THE COURT REPORTER: Anybody on the phone?

05:58 20 MR. FIGEL: Mr. Flumenbaum?

21 THE VIDEOGRAPHER: Are we on mute?

22 THE COURT REPORTER: No.

23 MR. FLUMENBAUM: No questions.

24 THE COURT REPORTER: I think we have standing  
05:58 25 orders for you guys on this case?

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 MR. HANAUER: In terms of delivery and all  
2 that?

3 THE COURT REPORTER: Yeah.

4 MR. HANAUER: We can go off the record.

05:58 5 THE VIDEOGRAPHER: This is end of media unit  
6 three. This concludes the deposition of Daniel  
7 Fischel. The video will be retained by  
8 Gradillas Court Reporters.

9 We are going off the record. The time  
05:59 10 is 5:59 p.m.

11 (Whereupon, the witness was  
12 excused.)

13 (The proceedings concluded at  
14 5:59 p.m.)

15

16

17

18

19

20

21

22

23

24

25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

CERTIFICATE OF WITNESS

I, DANIEL R. FISCHER, do hereby declare under penalty of perjury that I have read the entire foregoing transcript of my deposition testimony, or the same has been read to me, and certify that it is a true, correct and complete transcript of my testimony given on February 28, 2022, save and except for changes and/or corrections, if any, as indicated by me on the attached Errata Sheet, with the understanding that I offer these changes and/or corrections as if still under oath.

\_\_\_\_\_ I have made corrections to my deposition.

\_\_\_\_\_ I have NOT made any changes to my deposition.

Signed: \_\_\_\_\_  
DANIEL R. FISCHER

Dated this \_\_\_\_\_ day of \_\_\_\_\_ of 20\_\_\_\_.

Sworn to and Subscribed before me,  
this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public My commission expires: \_\_\_\_\_

1 STATE OF ILLINOIS

2 COUNTY OF COOK

3  
4 I, CHERYL L. SANDECKI, a Certified  
5 Shorthand Reporter within and for the State of  
6 Illinois, do hereby certify that heretofore,  
7 to-wit, on February 28, 2022, personally  
8 appeared before me, at 110 North Wacker Drive,  
9 Chicago, Illinois, DANIEL R. FISCHER, in a cause  
10 now pending and undetermined in the United  
11 States District Court, Southern District of New  
12 York, wherein Securities and Exchange  
13 Commission is the plaintiff and RIPPLE LABS,  
14 INC., BRADLEY GARLINGHOUSE, and CHRISTIAN LARSEN  
15 are the Defendants.

16 I further certify that the said  
17 DANIEL R. FISCHER was first administered an oath  
18 to testify the truth, the whole truth and  
19 nothing but the truth in the cause aforesaid;  
20 that the testimony then given by said witness  
21 was reported stenographically by me in the  
22 presence of the said witness, and afterwards  
23 reduced to typewriting by Computer-Aided  
24 Transcription, and the foregoing is a true and  
25 correct transcript of the testimony so given by



1 said witness as aforesaid.

2 I further certify that the signature to  
3 the foregoing deposition was reserved by counsel  
4 for the respective parties and that there were  
5 present at the deposition the attorneys  
6 hereinbefore mentioned.

7 I further certify that I am not counsel  
8 for nor in any way related to the parties to  
9 this suit, nor am I in any way interested in the  
10 outcome thereof.

11 IN TESTIMONY WHEREOF: I certify to the  
12 above facts this 1st day of March, 2022.

13  
14   
15  
16  
17

18 \_\_\_\_\_  
19 CHERYL L. SANDECKI, RPR, CLR  
20 CERTIFIED SHORTHAND REPORTER  
21 IL CSR NO.: 084-03710  
22 ID NO.: SRL-1145  
23 NJ CCR NO.: 30XI00241500  
24 TN NO.: 823  
25 WA CCR NO.: 22001795

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

## ERRATA SHEET

Deposition of: DANIEL R. FISCHER

Date taken: FEBRUARY 28, 2022

Case: SEC v. RIPPLE LABS, INC., et al.

PAGE LINE

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

CHANGE:

REASON:

Signed \_\_\_\_\_

Dated \_\_\_\_\_